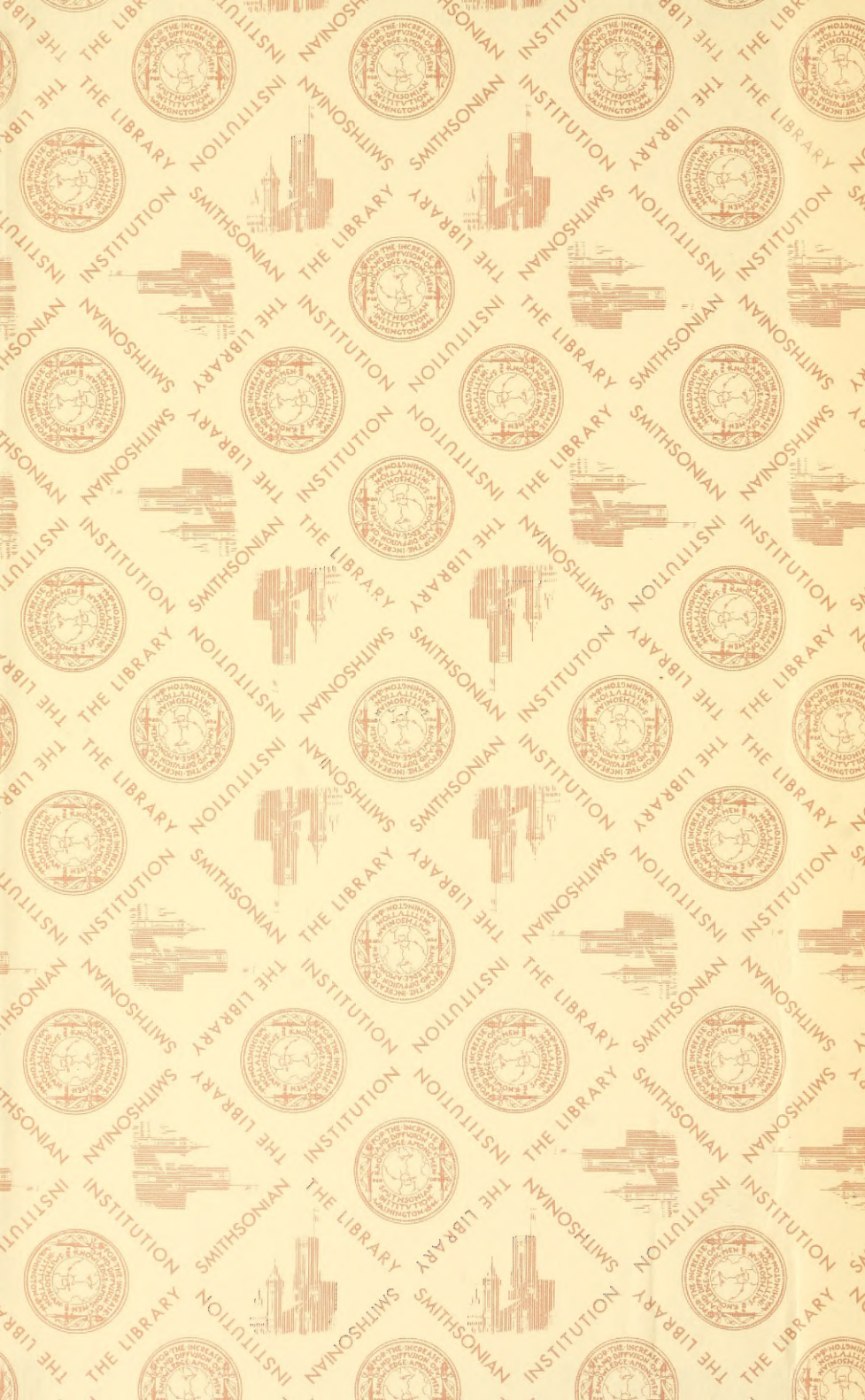
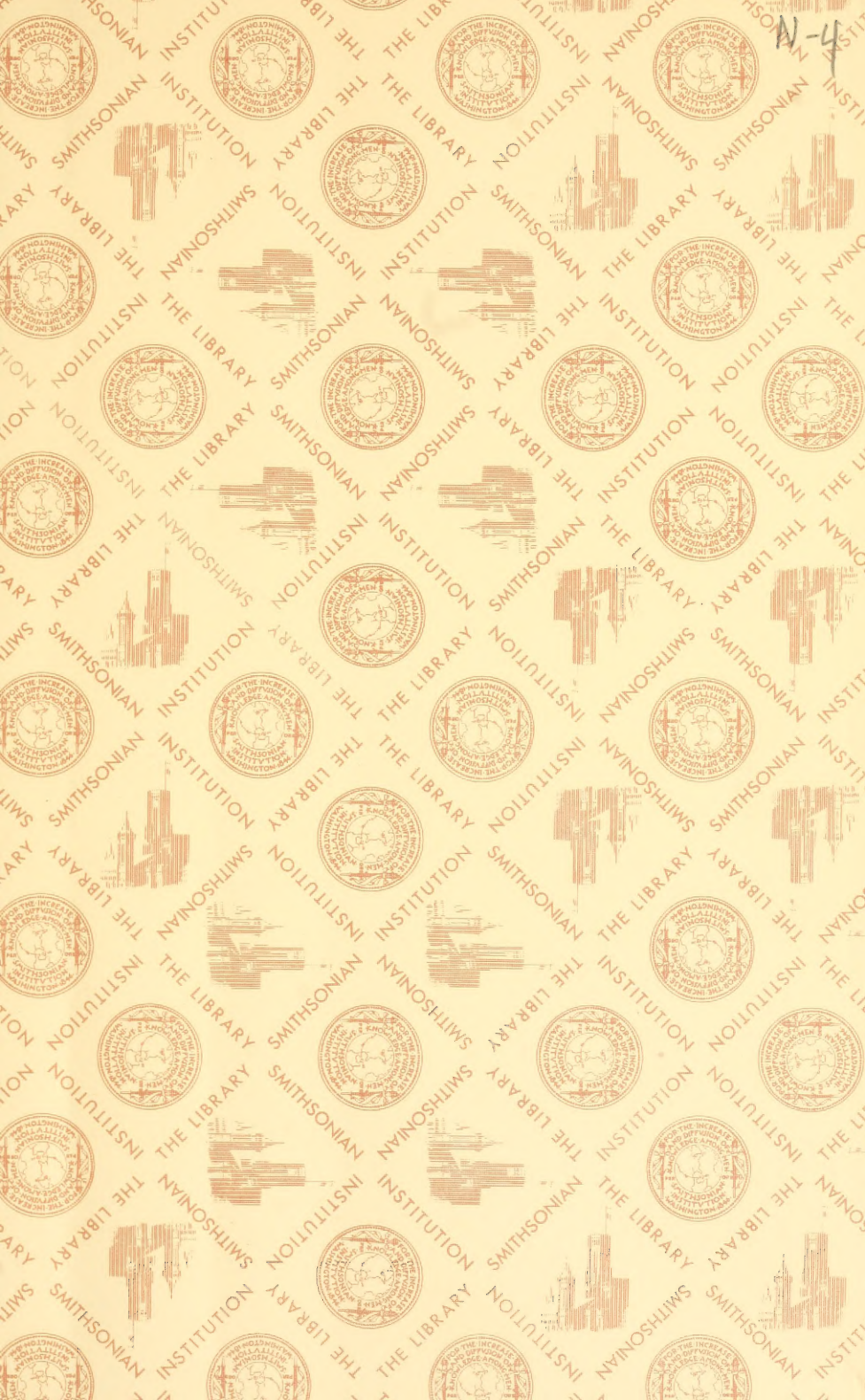


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GEOLOGICAL SURVEY OF ALABAMA

EUGENE ALLEN SMITH, *State Geologist*

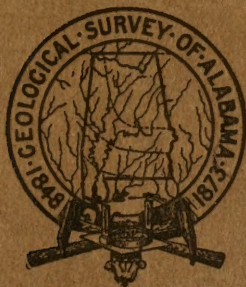
MUSEUM PAPER NO. 4
ALABAMA MUSEUM OF NATURAL HISTORY

ANNOTATED LIST OF THE
AVERY BIRD COLLECTION
IN
THE ALABAMA MUSEUM OF NATURAL HISTORY
(GEOLOGICAL SURVEY MUSEUM)

BY
ERNEST G. HOLT

Biographical Sketch of Dr. William Cushman Avery
by his sister

MISS MARY E. AVERY



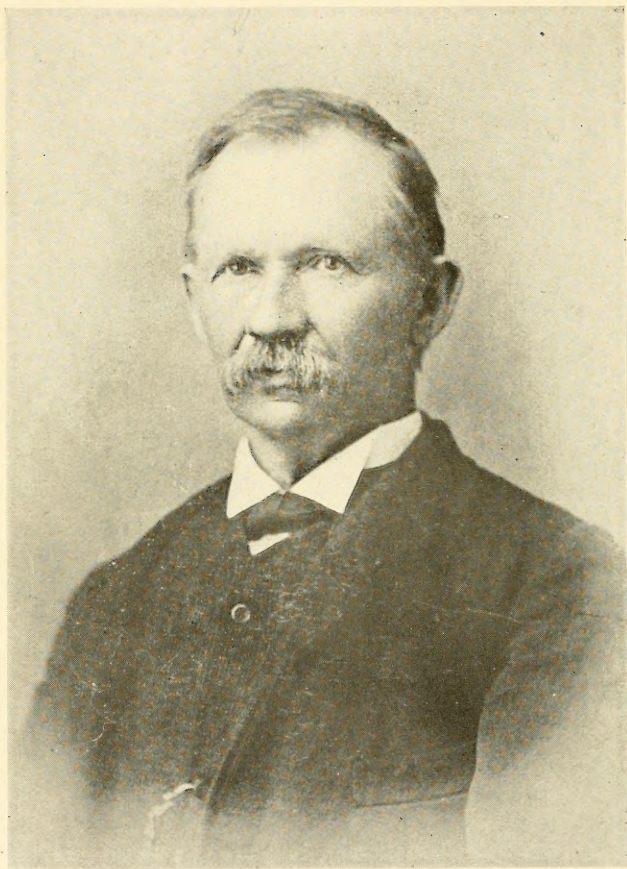
UNIVERSITY, ALABAMA

1921



THE BROWN PRINTING COMPANY
MONTGOMERY, ALA.

1921



WILLIAM CUSHMAN AVERY, M. D.

GEOLOGICAL SURVEY OF ALABAMA

EUGENE ALLEN SMITH, *State Geologist*

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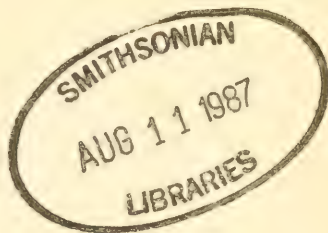
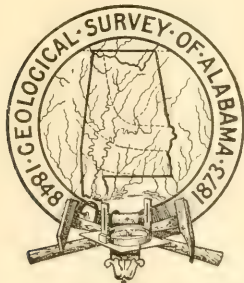
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UNIVERSITY, ALABAMA

1921

PRESS
BROWN PRINTING CO.
MONTGOMERY
ALABAMA

LETTER OF TRANSMITTAL.

*To His Excellency,
Governor Thomas E. Kilby,
Montgomery, Alabama.*

Sir: I have the honor to transmit herewith the manuscript of an annotated list of the Avery bird collection, with the request that it be printed as Museum Paper No. 4 of the Alabama Museum of Natural History, (Geological Survey Museum).

Very respectfully,

EUGENE A. SMITH,
State Geologist.

University of Alabama,
September, 1921.

GEOLOGICAL CORPS.

Eugene Allen Smith, Ph.D.	State Geologist
William F. Prouty, Ph.D.	} Assistant Geologists on Special Work.
George I. Adams, D.Sc.	
George H. Clark, C. E.	
Robert S. Hodges	Chemist
Roland M. Harper, Ph.D.	Geographer and Botanist
Mrs. Herbert H. Smith	Acting Curator of Museum
Truman H. Aldrich	Honorary Curator of Mollusca
Rev. H. E. Wheeler	Assistant in Paleontological Work
George N. Brewer	Field Assistant
A. T. Donoho	Secretary

RIVER GAGE HEIGHT OBSERVERS.

Tallapoosa River, at Sturdevant, Ala.

A. L. Stow.....Alexander City, Ala.

Elk River at Elkmont, Ala.

Dr. William E. Maples.....Elkmont, Ala.

Observations are made every day by these observers of the gage readings at the several stations. From these records when extended through sufficient time, the calculation of available horse power to be obtained from the different streams is made.

PREFACE.

THE act of the legislature of Alabama, approved April 18, 1873, "To revive and complete the geological and agricultural survey of Alabama," has from the first been construed to include, as related to agriculture and therefore legitimately a part of the survey work, the investigation of the fauna and flora of the State. In the preface of my first report, 1874, I have outlined the scope of a complete report of this survey to include,

- I. Physical Geography.
- II. Geology and Paleontology.
- III. Economic Geology.
- IV. Agricultural Relations, and
- V. Botany and Zoology,

and the reports of the Survey from year to year have covered more or less in detail all of these subjects.

Collections of the native plants of this State, begun in 1873 and continued since, have resulted in the accumulation of a fairly complete herbarium of the plants growing without cultivation in Alabama, and the publication of the classical work of Dr. Charles Mohr "The Plant Life of Alabama." Additional notes on the flora of the State have been published in most of the Survey reports up to the present time.

Naturally the insects injurious to vegetation and the birds and other animals which prey upon them, or which are themselves directly destructive of vegetation, must be considered in any reasonably complete account of the agricultural features of the State.

In my report for 1875 was published a preliminary paper on the cotton worm by Prof. A. R. Grote, and in the 1876 report, A Preliminary List of the Fresh Water Shells of the State, by Mr. James Lewis.

We have now in manuscript ready for publication, a similar list of the Reptiles and Batrachians of Alabama by H. P. Loding of Mobile, and the present report con-

tains a list of the collection of Birds of Alabama made by Dr. William C. Avery and now in the State museum, together with all his ornithological notes.

This is preliminary to a complete account of the birds of the State, which we hope in due time to present.

A similar report on the mammals of the State and on the insects, especially those injurious to vegetation, should follow in due course, but the overwhelming number of insect forms existing at the present day, makes a complete presentation of the insect life even of a state, a life work. We may hope, however, soon to make at least an initial report on the most important insect forms in their relation to agriculture.

EUGENE A. SMITH.

BIOGRAPHICAL SKETCH OF WILLIAM CUSHMAN AVERY.

Condensed from notes by his sister Miss Mary E. Avery.

WILLIAM CUSHMAN AVERY, M. D., son of Rev. John Avery, D. D., and Ann Paine, his wife, was born in Edenton, N. C., Sept. 21, 1831.

From his earliest years he evinced a love of knowledge. He went to the root of all that he felt worth learning; the more difficult the research, the more fascinating.

He was tutored at home by his mother, until he entered his teens. She recognized and appreciated his talents, and furthered their development. He loved nature, especially in the animal and vegetable kingdoms. I remember when a child seeing him pore over his volumes of natural history and filling a book with drawings of animals and of birds, sketches from nature, and copied from these histories.

He had such a love for drawing and painting, that at one period he thought seriously of making this his life work. He possessed great versatility of thought and aptness of learning in almost every branch.

He inherited a taste for languages from his father, who was a graduate of Williams College, Mass.; and afterwards of Yale College in 1813.

My brother, Dr. William C. Avery, graduated at Burlington College, N. J. in 1851 or '52. His college life was one of great happiness; wrapped in the pursuit of learning he won the esteem of the professors and the friendship of the students, many of whom were to be noted men in the world. He seemed utterly free from self conceit, so that none manifested envy towards him. In regard to literary investigations he was thoroughly self-reliant and self-sufficient, yet showing nothing of arrogance towards others.

After graduating at Burlington College, he taught school for several years. He then studied medicine at

the University of Pennsylvania and completed his course in Paris.

While in Paris he studied French, sparing no pains in becoming proficient in that language. He frequently avoided meeting his friends from America, not wishing to speak English while striving for fluency in French.

Just so it was while he was in Italy, Germany and Spain, his application was such that he became proficient in these languages also. While in Europe he traveled in Germany and Switzerland on foot, there studying nature.

After his return home he decided to settle for life in Marshall, Texas, and there to practice medicine. After a few years, he returned to his old home, "Contentment," near Greensboro, Ala., to visit his mother. Feeling that it was best to be near her, he did not return to Texas, but settled in Selma, Ala., in the early spring of 1861.

His office had scarcely been opened, when the signal of war sounded. He was filled with enthusiasm. He gave up everything and enlisted as a private in Col. N. H. R. Dawson's regiment.

His lot was never to be in a battle, for like many a fellow soldier, he was taken with measles soon after reaching Virginia. He knew nothing of the glories of a soldier's life, only sickness and weariness in the soldier's camp.

Recovering from the measles he came with his division to Dumfries on Ocoquon Creek, Virginia, not far from Washington City. There, from fatigue and lack of suitable care and nourishment in his broken down condition, he was taken with typhoid fever. That he did not die seemed a miracle; but he was saved for other work. Through this illness he was incapacitated for the duties of a soldier. His furlough and discharge from the army were granted and he returned to Greensboro, Ala., where he taught school for some time and then resumed the practice of medicine. He did not care for town life, but always made his home in the country.

Living in close touch with nature he had the opportunity of gratifying his love of natural history. He studied ornithology and related subjects for the mere love of them, but he became soon an ornithologist recognized and endorsed by the first in our land.

By correspondence he became well known to ornithologists, and among them claimed as his friends, Messrs. J. A. Allen and Frank Chapman, curators in the Museum of Natural History Central Park, N. Y.; and Prof. Coues, Messrs. Bendire, Merriam, and Robert Ridgway of the Smithsonian Institution in Washington City.

He had a great desire to make a collection of the birds of Alabama. Like many a gifted student, he had no money of his own, nor the aid of influential wealthy friends to advance him in his work. This did not deter him but added zeal and determination to his desire. He was very accurate. Time and labor were factors to prove or establish a fact.

He anticipated the necessity of the "bird law" which has recently been passed. In 1882 he wrote a long article on "Causes Leading to the Lessening and Destruction of our Game." This article is given below in the Systematic List.

Not long after the English sparrow was introduced into Central Park, New York, I spent the summer in Orange, N. J. The little birds increased so rapidly that Central Park could not hold them, and myriads flocked to the Jersey town. Now it was hoped that gardens and orchards would be freed from insects. Everybody rejoiced. I was fascinated with them, and made arrangements to take some of them home to my brother but I was disappointed. After getting home I told him of my plan, saying, "Brother, I hoped to bring you a lovely present, a gift that would give you more pleasure than anything else, but I did not succeed." "What was it?," he asked. "Oh," I replied, "a cage full of lovely little English sparrows. There were thousands of them in Orange, N. J., and everybody was wild about them." "English sparrows," he exclaimed. "Thank God, you did not succeed. Don't you know that they will prove

an awful pest. Those who introduced them thought the English sparrow was insectivorous, but instead it is granivorous; and I trust we will not have them here." After all they have come to stay.

To him no pleasure was equal to going off with gun, game bag and note book and spending the whole day, alone in the most unfrequented woods to watch the habits of birds.

Dr. Avery wrote very little for publication. His most important articles are in the *American Field*; Vols. XXXIV and XXXV, published in 1890 and '91. His correspondence with ornithologists, mammalogists and taxidermists was quite extensive and always instructive.

He made a collection of 900 birds, preparing them for scientific use, according to Audubon's plan. This collection was purchased by the Geological Survey of Alabama through Eugene A. Smith, State Geologist, and is now in the Alabama Museum of Natural History, University of Alabama.

In January, 1894, Dr. Avery seemed less capable of enduring great fatigue. We feared heart trouble. And thus it was for on March 11, 1894, God called him suddenly to his eternal rest.

"He who dies believing,
Dies safely through His love."

On his father's side, Dr. Avery was a lineal descendant of Dr. William Avery who came to America from Berkshire, England, in 1650; of Robert and Thomas Cushman, who came to America in the *Mayflower* in 1620; and of Isaac Allerton, likewise a *Mayflower* passenger.

On his mother's side he was closely related to Robert Treat Paine, one of the signers of the Declaration of Independence.

THE ORNITHOLOGICAL NOTES OF
DR. WILLIAM CUSHMAN AVERY
INCLUDING A CATALOGUE OF HIS ALABAMA
COLLECTION.

COMPILED AND EDITED BY ERNEST G. HOLT.

INTRODUCTION.

IN THE Museum of the Geological Survey of Alabama, at University, is a small but well preserved collection of birds brought together by the late Dr. William Cushman Avery of Greensboro, Ala. Most of the specimens were collected and preserved by Dr. Avery's own hands, although there are many secured by exchange with well known ornithologists, and a few that were purchased. The collection as a whole is fairly representative, except for the water birds, but is of especial interest because the greater part of the specimens were collected in the vicinity of Greensboro, and at other points in Alabama—a State none too well known ornithologically.

Since the death of Dr. Avery in 1894, many sub-species have been described and sweeping changes have been made in nomenclature, rendering a revision of the collection desirable. The privilege of this work was given the writer by Dr. Eugene A. Smith, State Geologist, and in January, 1914, a complete check of the collection was made with the assistance of Mr. Lewis S. Golson, of Prattville, Ala. All records were placed at our disposal, and though these consisted only of five combination catalogues and journals and a few loose pages, many interesting facts regarding the bird-life of the region and the early ornithological struggles of Doctor Avery were gleaned from them.

It was at first proposed by Dr. Smith to publish a catalogue of the revised collection, but because Dr. Avery's published notes are scattered through journals long since out of print, or otherwise unavailable, and because the unpublished material contained in his note-books seems of considerable value, it was decided to bring all together in a bulletin in the form of an annotated catalogue. The following list of 216 species and subspecies is the result. Alabama specimens only are included in this, though the collection contains many western and northern birds, and others taken beyond the boundaries of

the State. Dr. Avery did not collect personally outside his native state and almost all the specimens listed herein were taken by himself. It has been the writer's aim to make of this bulletin at once a complete resume of Doctor Avery's ornithological labors, and to bring together any interesting facts connected with the acquirement of his store of bird-lore.

Because of the exigencies of the writer's service with the U. S. Biological Survey, the work of searching through the Doctor's old records and compiling his published papers had to be done at odd moments between field trips. The war caused a further delay and the actual writing of the manuscript was accomplished in a military camp after the signing of the armistice. Thus several years have elapsed since the collection was worked over but the results have not been affected by the delay in publication.

It is worthy of note that Dr. Avery did not take a scientific interest in birds until comparatively late in life; this interest continued, however, until almost the hour of his death—7:30 o'clock on Sunday morning, March 11, 1894. His last specimen catalogued was a mockingbird taken on March 5th, 1894. The earliest note found is dated June 21, 1875, the fortieth anniversary of his birth, and is written in French on a page cut from an old journal (see under *Piranga r. rubra*, No. 151). A catalogue of fifty-five numbers and an "Oological Register" of seven numbers, running from May 23, 1876, to August 23, 1881, is contained on a few other pages from the same old account book, but few of these specimens are now in the collection. His really serious work was begun apparently in 1886, when he started a catalogue on July 6th. This latter catalogue is an orderly affair entered in five books through which are dispersed fragmentary journal records, notes on bird habits, song, nesting, and other items of interest.

Though Dr. Avery's published writings are not in themselves of great importance, his ornithological work bore abundant fruit through others. He contributed quite a number of stomachs of raptorial birds to the U. S. Bio-

logical Survey (then the Division of Ornithology and Mammalogy), the analyses of which are included in Dr. A. K. Fisher's classic work on "The Hawks and Owls of the United States in Their Relation to Agriculture." His correspondence with Dr. Fisher was extensive and it is very interesting to learn from Dr. Fisher that he himself, by mail, through the medium of the English sparrow, taught Dr. Avery to make bird skins. Sparrow skins were prepared in such a way as to show the different operations necessary to produce a good museum skin and forwarded to Dr. Avery who thus was enabled to copy them in preparing other birds. Dr. Fisher also identified many of the more obscure species for Dr. Avery.

Dr. Avery also corresponded actively with the officials of the U. S. National Museum and the American Museum of Natural History, notably: Dr. Elliott Coues, Major Charles E. Bendire, Robert Ridgway, Dr. J. A. Allen, and Dr. Frank M. Chapman. He contributed many specimens to both museums, including birds, eggs, nests, and notes which were sent to Maj. Bendire. Among the old Avery papers is quite a bundle of the diploma-like acknowledgments of these specimens by the Smithsonian Institute, all signed by G. Brown Goode, Assistant Secretary. His sets of *Peucaea aestivalis bachmani* were of considerable importance; and Davie's quotation in "Nests and Eggs of North American Birds" of Bendire's description of "5 nests and several full sets" form the greater part of the information regarding the nesting of Bachman's sparrow published in that work. A series of specimens of *Quiscalus quiscula* was collected to aid Mr. Ridgway in working out the relationships of the different subspecies. Besides the aforementioned scientists, Dr. Avery corresponded more or less regularly with the following: Dr. Harrison Allen, University of Pennsylvania; Frank B. Armstrong, Brownsville, Texas; Prof. Spencer F. Baird, Smithsonian Institution; William Brewster, Cambridge, Mass.; C. S. Brimley, Raleigh, N. C. (Brimley visited Avery at Greensboro in September, 1890); George G. Cantwell, Lake Mills, Wisconsin; F. H. Carpenter, Rehoboth, Mass.; William Dutcher, New York

City; H. W. Flint, New Haven, Conn.; Flood Brothers, Hudson, Mass.; Thomas H. Jackson, West Chester, Pa.; Thomas McIlwraith, Hamilton, Ontario; Dr. C. Hart Merriam, Washington, D. C.; J. T. Park, Warner, Tenn.; Harry G. Parker, Chester, Pa.; Charles J. Pennock, Kennett Square, Pa.; G. H. Ragsdale, Gainesville, Tex.; W. G. Smith, Colorado; G. E. Stilwell, Kansas City, Mo.; Frank B. Webster, Boston, Mass. There are specimens in the collection taken by Dr. Edgar A. Mearns, W. E. D. Scott, L. M. Loomis, and John Rowley, but the writer was unable to ascertain whether Dr. Avery corresponded directly with these gentlemen or received the specimens in exchange through some of his museum correspondents. Many of the letters from his correspondents fortunately are preserved in the files of the State Department of Archives and History, at Montgomery, and these are very interesting. For instance there is one from Robert Ridgway thanking Dr. Avery for correcting the diagnosis of *Dendroica vigorsi* as published in the former's "Manual of North American Birds," 1887, and Dr. J. A. Allen tells how to make a fat scraper and gives a few hints on poisoning the tails of mammal skins.

That Dr. Avery's interest in Zoology was not confined to birds is evidenced by a catalogue of fifty-three mammals taken Dec. 16, 1890, to Feb. 2, 1894. The collection included mice, rats, moles, skunks, chipmunks, musk rats, minks, flying squirrels, and others, the most of the specimens were little spotted skunks. Apparently few of his specimens were retained for his own collection, the majority being sent to Dr. A. K. Fisher, Dr. C. Hart Merriam, and the Smithsonian Institution. Snakes also were collected and sent to Dr. Leonhard Stejneger of the U. S. National Museum, and there was some correspondence with Drs. L. O. Howard and C. L. Marlatt, of the U. S. Bureau of Entomology, relating to insect specimens sent to them by Dr. Avery for identification. Dr. Avery was also something of an amateur botanist.

Doctor Avery was ever the sportsman. Besides being an enthusiastic gunner he was a lover of dogs and was widely known as an excellent trainer of these animals.

An extensive correspondence was carried on with I. Yearsley, Jr., of Coatesville, Pa., for whom he trained many bird-dogs. He also raised and sold dogs registered with the American Kennel Club of New York City. He was also interested in game fowls as shown by the following note from his sister, Miss Mary E. Avery: "You will notice that there are quite a number of hawks in the collection. I am sure that my brother felt a peculiar pleasure in stuffing them rather than they should stuff themselves with his beautiful game fowls." Like all true sportsmen the Doctor was keenly interested in guns, and the two works following occupied a place among his bird books: "The Gun and Its Development," 1884, by W. W. Greener, and "The Dead Shot; or Sportsman's Complete Guide: Being a Treatise on the Use of the Gun," 1867, by "Marksman." Another book, much used and bound in cloth, probably by Dr. Avery himself, is "The Wild-Fowler," 1864, by H. C. Folkard. In a letter from Amory R. Starr of Marshall, Texas, is the interesting statement that Dr. Avery was the "first to introduce the use of short guns into this section; by short guns meaning 30 and 32 inch barrels." At that time (August 28, 1889) however, one of Mr. Starr's friends was still addicted to the use of a 48-inch muzzle-loader! Doctor Avery owned several guns, of course, because he hunted deer as well as quail. For his ornithological collecting he used a .44 caliber and No. 12 shot.

Dr. Avery was an authority on Latin and Greek and was not unacquainted with French, Spanish and German. Much of his correspondence with Dr. Coues and Mr. Ridgway related to the etymology of ornithological names, and Mr. Ridgway in several letters took occasion to thank Dr. Avery for his criticisms of the nomenclature used in the "Manual of North American Birds," 1887. A considerable portion of Dr. Avery's correspondence with Dr. Merriam was devoted to questions of nomenclature, particularly etymology, and to some of Dr. Avery's criticisms of the nomenclature adopted by the American Ornithologists' Union. Dr. Stejneger replied at length through Dr. Merriam. Dr. Avery was a stickler for the

classic Latin and Greek and of course his ideas did not conform to the A. O. U. rules on original spelling. Miss Mary E. Avery in a letter to Dr. T. M. Owen writes that "It would be difficult to say whether he loved the study of languages or of nature best."

Dr. Avery became an Associate Member of the American Ornithologists' Union in 1887, and his name was listed in "The International Scientists' Directory," published by S. E. Cassino, Boston, 1888.

Though Dr. Avery's serious interest in ornithology did not awake until late in life, he then surrounded himself with the best books that could be had at that time on the subject. In his library were found among others, the following: Coues' "Key to North American Birds," 1872; Ridgway's "Manual of North American Birds," 1887, and "Nomenclature of Colors for Naturalists," 1886; Davie's "Nests and Eggs of North American Birds," 1889; A. O. U. "Code of Nomenclature and Check-List of North American Birds," 1886; Maynard's "Naturalist's Guide," 1887; and Hornaday's "Taxidermy and Zoological Collecting," 1891.

Dr. Avery was much concerned over the increasing scarcity of birds and scattered through his journals are many references to the subject. The following are of interest: "Sept. 5th, 1889. Saw on the edge of a piece of woods many warblers, gnatcatchers, and cuckoos feeding evidently upon the army worms on the cotton in the adjacent field. Shot a blue yellow-back warbler; too badly shot to preserve; this individual with several others of the same species, and numerous blue-gray gnatcatchers were feeding on army worms.

"I have often seen the fields around woods completely protected against worms by the birds; but that was fifteen or twenty years ago. The birds have decreased so since that time that they seem to make little impression on the army of worms even around forests."

"Jan. 22, 1892. Birds have been scarcer this winter than I have ever known them before; a few myrtle warblers, and sparrows, with now and then a robin, or a small bunch of cedar waxwings are nearly the sum total of our

birds. Breech-loaders in the hands of free negroes are fast exterminating our small birds, as they have already destroyed our squirrels and hares; our game little partridges (*Colinus*) also are fast disappearing."

"Sept. 27, 1893. The day was bright and clear and many birds were seen, but a negro began to shoot and continued his fusillade at the little birds from eight o'clock in the morning till ten. It was gall and wormwood to me to hear the report of his gun every four or five minutes. How many beautiful birds this savage must have killed!"

In this connection see notes under *Colinus v. virginianus*, No. 56 and the fifth paragraph under *Meleagris g. silvestris*, No. 57.

In the following pages each species of bird noted by Dr. Avery is listed in the systematic position adopted in the 1910 edition of the "A. O. U. Check-list of North American Birds." The nomenclature used here is that of the same work, except as noted in specific instances. Under each species or subspecies are brought together all the notes on that form that could be found, published or unpublished, regardless of the source from whence derived. All of his published ornithological writings are here republished but not in their original form, the notes being assembled under the species to which they refer. After each quotation from a published paper is given a date, often followed by a letter, in parentheses; this is the date of publication and refers to the bibliography at the end of the bulletin where complete titles and references to original publication are given. Original (unpublished) notes are enclosed within quotation marks but are not followed by a bibliographical reference. Where specimens of any given bird exist in the collection, these are listed as the last items under the particular species or subspecies concerned.

All notes refer to Hale county, Alabama, unless otherwise specified.

The writer acknowledges with gratitude the assistance received from Mr. Alexander Wetmore, Mr. Arthur H. Howell, and the late Prof. Wells W. Cooke of the U. S. Bureau of Biological Survey. Many of the specimens in

the Avery collection were identified by Dr. H. C. Oberholser of the same bureau. Thanks are also due Dr. Thomas M. Owen, director of the State Department of Archives and History, for granting access to the Avery books and correspondence on file in his department. But the writer is especially indebted to Mr. Lewis S. Golson of Prattville, Alabama, for his assistance in working over the collection, and to Dr. Eugene A. Smith, State Geologist, for making possible the entire undertaking.

ERNEST G. HOLT.

Barachias, Ala.
May 22, 1919.

SYSTEMATIC LIST.

(For explanations see closing paragraphs of Introduction.)

1. PODILYMBUS PODICEPS (Linnaeus).
PIED-BILLED GREBE.
"Didapper."

Speaking of this bird in Hale County, Dr. Avery stated that it was "Not uncommon during spring migration" (1890d) and records taking a specimen on March 15th (1884).

2. GAVIA IMMER (Brunnich).
LOON.

"A specimen has been taken on a pond eight miles west of Greensboro, at Umbria." (1890d).

3. LARUS ATRICCILLA (Linnaeus).
LAUGHING GULL.

There were no notes on this species found among the Avery papers, though the following specimen is in the collection:

No. 495. Dauphin Island. Sept. 20, 1892. W. C. Avery.

4. STERNA MAXIMA (Boddart).
ROYAL TERN.

Dr. Avery records taking the royal tern "on the Gulf," presumably near Dauphin Island on Sept. 19, 1892.

5. STERNA ANTILLARUM (Lesson).
LEAST TERN.

"One specimen shot on Cocke's Mill Pond, five miles west of Greensboro." (1890d). This specimen is not in the collection and the date of capture could not be found in the original notes.

6. HYDROCHELIDON NIGRA SURINAMENSIS (Gmelin).
BLACK TERN.

"Seen rarely during the fall migration. I have in my collection a specimen shot by William Hall, of Greensboro,

in the latter part of July, 1888." (1890d). The stomachs of the two specimens in the collection were "packed with cotton-boll flies."

No. 1064. Male. Cocke's Pond near Greensboro. Sept. 11, 1893.
W. C. Avery.

No. 1065. Male. Cocke's Pond near Greensboro. Sept. 11, 1893.
W. C. Avery.

7. RYNCHOPS NIGRA (Linnæus).

BLACK SKIMMER.

"Shearwater."

"Black skimmer, common Gulf Coast of Baldwin (County), Sept. 21, 1892. Several specimens were taken on Dauphin Island, Sept. 21, 1892" (Original notes). An odd head, bearing no label, seems to be the only trace of these specimens in the collection.

8. ANHINGA ANHINGA (Linnæus).

WATER TURKEY.

"Found rarely; breeds; resident" (1890d).

One specimen without label.

9. PHALACROCORAX AURITUS (Lesson).

CORMORANT.

"Nigger Goose."

In 1892 Dr. Avery spent the time between Sept. 16th and Oct. 2nd in Baldwin County and along the Gulf Coast to Dauphin Island. He records: "Cormorants were seen, but no specimens were taken."

10. PELECANUS ERYTHORHYNCHOS (Gmelin).

WHITE PELICAN.

See note under succeeding species.

11. PELECANUS OCCIDENTALIS (Linnæus).

BROWN PELICAN.

The following note appeared under "Natural History" in the "American Field" for July 1, 1893:

"Mr. J. S. Christy in the American Field of June 17 describes the American white pelican (*Pelecanus erythrorhynchos*) and he wishes to know: 'Whence it came or where its native home is.' The American white pelican

is generally common west of the Mississippi river, and breeds from Utah northward. It is rare, however, in the Atlantic and Gulf States. A white pelican was taken several years ago near Livingston, Alabama. Captain J. W. A. Wright, of Livingston, mounted the specimen. I have never seen the white pelican; but on Sept. 20, 1892, I took two specimens of the brown pelican (*Pelecanus fuscus*) near Fort Morgan, on the Gulf of Mexico. I found the brown pelican common all along the coast, from Perdido Bay to Dauphin Island." (1893a).

12. LOPHODYTES CUCULLATUS (Linnæus).

HOODED MERGANSER.

"Summer Duck."

"Not common; winter resident" (1890d). This bird should be found breeding in Hale county in favorable places. Broods of young have been observed in Autauga county.

13. ANAS PLATYRHYNCHOS (Linnæus).

MALLARD.

"Greenhead."

"Common; winter resident." (1890d).

14. ANAS RUBRIPES (Brewster).

BLACK DUCK.

"Black Mallard."

"Rare; winter resident." (1890d).

15. MARECA AMERICANA (Gmelin).

BALDPATE.

Writing of the pintail in a letter to the American Field, Dr. Avery stated "This duck appears here (Greensboro) about the first of March, with the blue-wing teal, the bald pate and the blue-wing shoveller." (1884). Six years later he wrote, "Seen occasionally fall and spring." (1890d).

16. NETTION CAROLINENSE (Gmelin).

GREEN-WINGED TEAL.

"Once abundant, now rarely seen. Winter resident." (1890d). This statement must be taken as comparative,

for the green-winged teal is still one of the common ducks in Alabama.

17. QUERQUEDULA DISCORS (Linnæus).
BLUE-WINGED TEAL.

The first mention made of this species by Dr. Avery was incidental, in writing of the pintail, and the quotation will be found under that species. He states in this article that the blue-winged teal appears at Greensboro about March 1st, but in his original notes for 1886 there is a record of the bird on Sept. 10th, and in 1891 this note appears under date of Sept. 14th: "A flock of blue-winged teal were reported at Cocke's Pond, of which Mr. Cocke bagged two." "Once common, now seldom seen. Winter resident." (1890d).

No. 1082. Female. Greensboro. Oct. 9, 1893. W C. Avery.

18. SPATULA CLYPEATA (Linnæus).
SHOVELLER.

For first mention of this species see note under *Dafila acuta*. "Seen in the spring, never in large numbers, but in bunches of six to eight at the highest." (1890d).

19. DAFILA ACUTA (Linnæus).
PINTAIL.

"March 2nd I saw and obtained a specimen of *Dafila acuta* (Pintail.) Have heard of others being shot. This duck appears here about the first of March, with the blue-wing teal, the bald pate and the blue-wing shoveller." (1884.) "Once abundant during spring and autumn migrations; but, like all ducks, growing yearly scarcer in this country." (1890d).

20. AIX SPONSA (Linnæus).
WOOD DUCK.
"Summer Duck."

"Once abundant, now not at all common. Twenty-five years ago, in September, I saw one morning at least three hundred of these ducks come at dawn, to feed in a pond, at Millwood, on the Warrior River, ten miles

west of Greensboro. Now for a whole year not half of that number could be found in that locality." (1890d).

No. 1006. Male. Warrior River, Greensboro. Dec. 2, 1892. W. C. Avery.

No. 1007. Female. Warrior River, Greensboro. Dec. 3, 1892. W. C. Avery.

No. 1008. Male. Warrior River, Greensboro. Dec. 3, 1892. W. C. Avery.

21. *MARILA AMERICANA* (Eyton).
REDHEAD.

"About ten years ago common in the Cypress Slough, near Millwood, on the Warrior River. Has not been seen for eight or ten years." (1890d).

22. *MARILA MARILA* (Linnæus).
SCAUP DUCK.

"Common on the Warrior River. Winter resident." (1890d).

23. *MARILA AFFINIS* (Eyton).
LESSER SCAUP DUCK.

"Has not been seen for ten years; once common during migrations." (1890d).

No. 908 (805) Female. Warrior River. Greensboro. Nov. 7, 1890. Cy Jones.

24. *BRANTA CANADENSIS CANADENSIS* (Linnæus).
CANADA GOOSE.

"Rare. Winter resident." (1890d).

25. *MYCTERIA AMERICANA* (Linnæus).
WOOD IBIS.

Dr. Avery's original notes show that he took one of these birds at Cocke's Pond, five miles west of Greensboro, July 26, 1891, though unfortunately the specimen is not now in the collection. He writes: "This bird has been seen several times but never collected till this specimen and hence never with certainty identified. When it was seen some years ago at Cocke's Pond it was then supposed to be the wood stork or ibis." His supposition seems to have been correct.

26. BOTAURUS LENTIGINOSUS (Montagu).
BITTERN.

"Not common. Spring migrant." (1890d).

No. 818. Male. 5 mi. W. of Uniontown. Mar. 28, 1891. W. C. Avery.

27. ARDEA HERODIAS (Linnæus).
GREAT BLUE HERON.
"Big Blue Crane."

"Common. Resident. Breeds." (1890d). Under date of Sept. 21, 1892, Dr. Avery wrote in his note book: "Great blue heron seen frequently on Perdido Bay and along the Gulf Coast." These birds were probably subspecies *wardi*. A specimen taken Nov. 26, 1913, by Pratt Thomas on the Black Warrior River, near University, Ala., is referable to *herodias*.

28. HERODIAS EGRETTA (Gmelin).
EGRET.
"White Crane."

In 1884 Dr. Avery published the following record of this species: "There (Cocke's Pond, five miles west of Greensboro) I shot last spring a beautiful specimen of the great white egret, *Ardea egretta*." (1884). Six years later he writes: "Rare. I have a specimen in my collection which was shot at Cocke's Mill Pond, five miles west of Greensboro; I have seen two others. My specimen is labeled August 14. The other two were seen in the spring." (1890d).

No. 183. Female. Greensboro. Aug. 14, 1889. W. C. Avery.

29. EGRETTA CANDIDISSIMA CANDIDISSIMA (Gmelin).
SNOWY EGRET.

A specimen of this species was taken in Greene County, July 1, 1889, and mounted by Dr. Avery for John Cocke, Jr., of Cockeville.

30. FLORIDA CÆRULEA (Linnæus).
LITTLE BLUE HERON.

"Common. Summer resident." (1890d).

No. 186. Male. Millwood, near Greensboro. Aug. 16, 1889. W. C. Avery.

31. BUTORIDES VIRESCENS VIRESCENS (Linnæus).
GREEN HERON.
"Fly-Up-The-Creek."

"The first recorded specimen of this heron was shot June 9, 1888, while "flying down the Walton Bottom" near Greensboro. Its stomach was filled with crawfish. Common. Summer resident. Breeds." (1890d).

No. 171. Male, hornot. Greensboro. July 12, 1889. W. C. Avery.

No. 869. Sex (?). Greensboro. June 24, 1891. W. C. Avery. Odd specimen with no label.

32. NYCTICORAX NYCTICORAX NÆVIUS (Boddært).
BLACK-CROWNED NIGHT HERON.

In his original notes, Dr. Avery records this bird near Greensboro, Sept. 6, 1886, but for some reason omitted the record from his "Birds Observed in Alabama," published in 1890.

33. NYCTANASSA VIOLACEA (Linnæus).
YELLOW-CROWNED NIGHT HERON.

July 1, 1879, recording the capture of one of these herons, Dr. Avery wrote: "This bird lit in a cedar (in the back yard) where the fowls had gone to roost. It was killed after sunset." Eleven years later he published this note: "Not common. A specimen in my collection is labeled Aug. 12." (1890d).

No. 185. Female. Greensboro. Aug. 12, 1889. W. C. Avery.

34. GRUS AMERICANA (Linnæus).
WHOOPIING CRANE.

"Rare. Seen many years ago in the Cypress Slough, Millwood." (1890d).

35. RALLUS ELEGANS (Audubon).
KING RAIL.

Concerning this bird, Dr. Avery in 1888 published the following:

"On the 24th of March I met three small boys who were returning from the field with dogs and guns. Besides a half dozen hares which one of them carried on a

string over his shoulder, was a king rail (*R. elegans*) tied by the leg and in the hands of one of the boys.

"It seems that the rail had been pointed by their dog, flushed and shot at. She returned immediately, however, to the spot where she had been flushed first, and allowed herself to be captured by the boys. I asked permission of the owner to examine the bird, and observing a protuberance near the vent, I pressed it, and received in my hand a mature egg. This egg measures 1.54 by 1.22. The ground color is dull white, blotched and spotted with rusty brown, also specks of the same color and indistinct spots of lilac. The brown spots are largest and irregularly scattered over the surface. They vary in size from fifteen hundredths to the one hundredth of an inch in diameter. I returned to the marsh with one of the boys, who not being able to locate the tussock of bulrush where they had captured the rail, our search for the nest was fruitless." (1888).

Two years later he wrote: "Not common. Resident. Breeds." (1890d).

No. 327. Male. Greensboro. Dec. 23, 1889. W. C. Avery.

No. 853. Male. Greensboro. May 23, 1891. W. C. Avery

36. PORZANA CAROLINA (Linnæus).
SORA.

Recorded by the Doctor at Greensboro, Oct. 10, 1888. Another entry in his original note books reads: "A single individual of the sora was seen and taken on Dauphin Island, Sept. 21, 1892."

"Rare. Occurs during autumn and spring migrations." (1890d).

No. 1028. Male. Greensboro. Mar. 11, 1893. W. C. Avery.

No. 1029. Female. Greensboro. Mar. 11, 1893. W. C. Avery.

37. COTURNICOPS NOVEBORACENSIS (Gmelin).
YELLOW RAIL.

In consulting the entry in the Doctor's original catalogue of the specimen cited below, this note was found which serves to show his view of a certain phase of nomenclature: "My first record of the yellow crane. In looking up the name of this bird I find that the A. O.

U. have adopted the appellation rail instead of crake used by Dr. Coues. Now it is very desirable that we should have generic names as precise as possible. Why not translate *Porzana* (*Coturnicops* was then included under *Porzana*) as crake and *Rallus* rail?"

No. 964. Male. 10 mi. S. of Greensboro. Dec. 19, 1891. W. C. Avery.

38. FULICA AMERICANA (Gmelin).

Coot.

In 1886 Dr. Avery published an article in the "Ornithologist and Oologist" entitled, "Migration of the Coot," and four years later used much of the same material in his list which appeared in the "American Field." However, it is considered worth while to republish here both notes in full.

"A fact relative to the migration of the coot (*Fulica americana*), known here by the French name, Poule-d'eau, may, perhaps, be worth recording. About the middle of April, 1885, as I was going out of the house, at sunrise, my attention was attracted to a bird sitting within a few feet of the porch. It proved to be a coot. Instead of trying to escape, as any other bird would have done, when I extended my hand to catch it, the poule-de'eau showed fight. I confined it in a chicken-coop in the yard, and supplied it with some corn-bread and water. If it ever ate or drank while in my possession, I was not aware of the fact. It took, to my knowledge, neither food nor water. It seemed to spend every minute of the day and night in perpetual motion. Its efforts were not in vain.

"'Omnia vincit improbus labor,' was, doubtless, the motto of my prisoner. By thrusting the head and neck through every opening within reach, the restless bird at last forced off a slat and recovered its freedom. On the third day after it had been placed in 'durance vile,' I saw it standing on top of its prison pluming itself. I advanced towards it, expecting to capture it again. Imagine my surprise when it rose on strong pinions, flying high and going in a northerly direction, as far as I could see it. This was not the first time that I had seen in

the spring this, to me, apparently silly bird offering battle to its captor. I had believed that 'coot' and fool were justly synonymous.

"The coot has been slandered; it does not fly because it *cannot* fly. Not because it wants the sense of danger, but because it has not the power to escape, does it allow itself to be taken, when it drops exhausted, on its long migratory flight, and rests till its tired wings have recovered strength to bear it onward." (1886a).

"Spring and autumn migrant. Among the various names given to this bird is that of 'fool hen.' 'Coot' is also a synonym of stupidity. I believe this to be a slander on this bird. Some years ago, as I stepped out of doors early one morning, I found a coot seated under the edge of the steps. It made no effort to escape, as it was exhausted, and had fallen there to rest during the night. I kept it confined in a coop for several days; most of the time was spent by it, night and day, in the endeavor to escape; it finally pushed off a slat from the coop, and I found it seated there pluming its feathers. On seeing me approach to recapture it, it took wings and flew northward, and went in that direction as far as the eye could reach. On October 29 last a specimen of this bird was brought to me; it is now in my collection. It lay in a fence corner where it had fallen and was resting to resume its migration southward. It did not try to escape, but simply pecked at the hand of its captor. It could not fly, and did not make the attempt. Instead of being a 'fool,' it acted wisely, as escape was impossible." (1890d).

No. 800. Female. Greensboro. Oct. 29, 1890. W. C. Avery.

39. PHILOCHELA MINOR (Gmelin).
WOODCOCK.

"The woodcock is not a common bird in this part of Alabama (Hale County) and for that very reason it is more prized by the sportsman here than any other species of game, not even the Bob White excepted.

"Very few woodcocks are found in the black lands; but in the willow thickets, and swamps of the northern

part of Hale County, with a dog trained to hunt them, the shooter might bag half a dozen of these interesting birds in a day. There are many more of them always than one would suppose, as they escape notice by their retired habits. The almost impenetrable briar patches and sloughs, where they lie concealed till twilight, save many of them from the bird bag. At that hour of the day the whistle of their wings may be heard as they pass swiftly by to their feeding grounds in the open fields. They are mute till the nesting season, which begins here early in February. Then they are quite a noisy bird. The male makes his whereabouts known at that time by ascending on sounding pinions, just before night, and, suspended several hundred feet above some open land, cotton or corn field, now bare, he plays fantastic tunes before high Heaven. The observer might mistake these tunes, which the woodcock plays with his wings, for songs; but he cannot produce a musical sound except with his wings, which are the Aeolian-harp, and the primaries or pinions are the strings of that harp, whose vibrations are very similar to the sounds produced by running the fingers over the strings of a guitar.

"When this aerial performance, which lasts for several minutes, is ended, he falls headlong to the ground, and so rapidly that he is generally secure from any untimely shot that might be intended for him.

"Now begins his call to his dusky partner. There is no music in that 'spake' followed by a dissyllable so low and whispered that it can be heard only at a few feet distant, 'gooduck!' All is silent; then comes another 'spake! gooduck!' This is certainly not musical; but it answers the purpose of a song and serves to attract the female.

"Woodcocks were 'soaring' and 'spaking' here on the sixth of last February—'spaking,' as the Irishman would say, to their fair companions. Is there a shooter—I will not say a sportsman—who kills woodcocks here in the South in February? If there is, he is not a sportsman, but an assassin." (1890a).

In Dr. Avery's original note books, under date of Feb. 23, 1893, is the following entry:

"Took a nest of woodcock on the edge of a swamp next to Hopewell Branch. Set of 4; incubation slight. Nest was about 6 inches above the level of the marsh. Material: leaves and pine straw. The old bird was pointed on the nest by my setter 'Jeff Bo,' and I flushed and fortunately missed it when I fired, not being aware that she was sitting—reflection, woodcock should not be shot in Alabama after the middle of January."

No. 291. Female. Greensboro. Dec. 3, 1889. Gaillard Harvey.

40. GALLINAGO DELICATA (Ord.)

WILSON'S SNIPE.

"Snipe."

The earliest record found of this species is a note dated Jan. 17, 1878, giving measurements of an adult male taken at Greensboro. It reads further, "I have shot snipe as early as the middle of September; they generally appear late in the fall and are abundant till April."

"*Gallinago wilsonii* has been abundant since the latter part of February. Wilson's snipe is always on the move here; hundreds appear at times and after remaining a few days suddenly disappear. A few, however, spend the winter here." (1884).

"Spring and autumn migrant. Once abundant; now not common." (1890d).

The following appears among the Doctor's original notes for 1891: "September 12: Wilson's snipe were seen at Cocke's Pond September 14; four or five Wilson's snipe were seen at Cocke's Pond and one was bagged by Mr. Cocke's son Webb. September 16; collected at Cocke's Pond two yellow shanks (*Totanus flavipes*); also Wilson's snipe (*Gallinago delicata*)."

On the label of the specimen listed below was found the interesting bit of information that the "stomach contained two leeches."

No. 987. Female. Greensboro. Mar. 19, 1892. W. C. Avery.

41. PISOBIA MACULATA (Vieillot).

PECTORAL SANDPIPER.

"Not common. Spring migrant." 1890d).

"Several pectoral sandpipers were observed on Dauphin Island, Sept. 21, 1892." (Original notes).

- No. 996. Male. Dauphin Id. Sept. 21, 1892. W. C. Avery.
- No. 997. Male (?). Dauphin Id. Sept. 21, 1892. W. C. Avery.
- No. 998. Female. Dauphin Id. Sept. 21, 1892. W. C. Avery.
- No. 1030. Male. Greensboro. Mar. 25, 1893. W. C. Avery.
- No. 1031. Male. Greensboro. Mar. 25, 1893. W. C. Avery.
- No. 1045. Female. Greensboro. Apr. 15, 1893. W. C. Avery.

42. *PISOBIA FUSICOLLIS* (Vieillot).
WHITE-RUMPED SANDPIPER.

"Not common. Spring migrant. Two specimens taken May 26, 1888." (1890d).

- No. 858. Female. Cocke's Pond, Greensboro. May 30, 1891. W. C. Avery.
- No. 860. Female. Cocke's Pond, Greensboro, May 30, 1891. W. C. Avery.
- No. 861. Male. Cocke's Pond, Greensboro, May 30, 1891. W. C. Avery.
- No. 862a. Female. Cocke's Pond, Greensboro. May 30, 1891. W. C. Avery.

43. *PISOBIA MINUTILLA* (Vieillot).
LEAST SANDPIPER. •
"Peep."

"Several seen on the Island (Dauphin) Sept. 21, 1892." (Original notes).

- No. 837a. Male. Greensboro, May 9, 1891. W. C. Avery.
- No. 840. Female. Greensboro, May 9, 1891. W. C. Avery.
- No. 849. Female. Greensboro, May 16, 1891. W. C. Avery.
- No. 851 (?). Male. Greensboro, May 16, 1891. W. C. Avery.
- No. 853 (?). Male. Greensboro, May 16, 1891. W. C. Avery.

44. *EREUNETES PUSILLUS* (Linnæus).
SEMIPALMATED SANDPIPER.

"Not common. Spring migrant. A specimen, May 26, 1888." (1890d).

- No. 859. Male. Greensboro. May 30, 1890. W. C. Avery.
- No. 862. Male. Greensboro. May 30, 1890. W. C. Avery.

45. *CALIDRIS LEUCOPHÆA* (Pallas).
SANDERLING.

The only mention of the sanderling is under date of Sept. 21, 1892, in the Doctor's original notes. He writes: "Sanderling common on the Gulf Shore of Baldwin

(County); many were shot here and on Dauphin Island."

No. 1035. Baldwin Co., near mouth of Perdido Bay. Sept. 21, 1892. W. C. Avery.

No. 1036. Baldwin Co., near mouth of Perdido Bay. Sept. 21, 1892. W. C. Avery.

46. LIMOSA FEDOA (Linnæus).
MARBLED GODWIT.

In 1884 Dr. Avery published the following note on this species in a miscellaneous article addressed to the Editor of the American Field: "I will mention in this connection, that in 1880, in the spring, I shot a rare bird in this county—the great marbled godwit, (*Limosa fedoa*). It was feeding in the mud of a mill-pond, the dam of which had just broken. My attention was attracted by the peculiar manner in which the bird was feeding, thrusting its long bill up to its eyes in the mud, while its tail described an arc of ninety degrees. This pond, about five mile west of Greensboro, is a favorite resort for birds of the snipe family and water-fowl during the Spring and Fall migrations." (1884).

Evidently speaking of the same individual, he wrote six years later: "A specimen was taken at Cocke's Mill-pond, several years ago during the spring migration. Three only seen." (1890d).

47. TOTANUS MELANOLEUCUS (Gmelin).
GREATER YELLOW-LEGS.

"Not common. Spring and autumn migrant." (1890d).

"Dauphin Island, Sep. 21 (1891); several observed." (Original notes).

48. TOTANUS FLAVIPES (Gmelin).
YELLOW-LEGS.

"March 15th, saw and shot *Totanus flavipes* (lesser yellow shanks)." (1884).

"Not common. Spring and Autumn migrant." (1890d).

"Collected at Cocke's Pond two yellow shanks (*Totanus flavipes*); also Wilson's snipe (*Gallinago delicata*). The

yellow shanks were the first seen this fall." (Original notes. Sept. 16, 1891.)

"Several were taken on the Island (Dauphin) on the 21st (Sept. 1892)." (Original notes).

No. 838. Female. Greensboro. May 9, 1891. W. C. Avery.

No. 839. Male. Greensboro. May 9, 1891. W. C. Avery.

49. HELODROMAS SOLITARIUS SOLITARIUS (Wilson).
SOLITARY SANDPIPER.

"Common. Spring and Autumn migrant. In my collection is a specimen of this bird with label bearing date August 25, 1888; collected two miles west of Greensboro. One peculiarity of this wader is that it sometimes perches upon stumps or fences, near its feeding grounds." (1890d)

No. 465. Male. Greensboro. April 19, 1890. W. C. Avery.

No. 481. Male. Greensboro. April 26, 1890. W. C. Avery.

No. 941. Female. Greensboro. Sept. 29, 1891. W. C. Avery.

No. 1059. Male. Greensboro. May 4, 1893. W. C. Avery.

50. CATOPTROPHORUS SEMIPALMATUS (Gmelin).
WILLET.

Under *Symphemia semipalmata* in Dr. Avery's notes appears:

"Willetts were observed on the Island (Dauphin) on the 21st (Sept. 1892); but none were captured."

(51. BARTRAMIA LONGICAUDA (Bechstein).
UPLAND PLOVER.

"Not common. Spring migrant." (1890d).

52. ACTITIS MACULARIA (Linnæus).
SPOTTED SANDPIPER.
"Peetweet."

"March 21, saw *Tringoides macularius* (Spotted Sandpiper)." (1884).

"Summer resident. Not common." (1890d).

No. 116. Male. Greensboro. Apr. 26, 1889. W. C. Avery.

No. 841. Female. Greensboro. May 9, 1891. W. C. Avery.

No. 850. Male. Greensboro. May 16, 1891. W. C. Avery.

No. 852. Male. Greensboro. May 16, 1891. W. C. Avery.

53. NUMENIUS AMERICANUS (Bechstein).
LONG-BILLED CURLEW.

The only mention of this species in Dr. Avery's notes follows:

"Sept. 21, 1892. *Numenius longirostris*, Long-billed curlew, seen on Dauphin Island."

54. SQUATAROLA SQUATAROLA (Linnæus).
BLACK-BELLIED PLOVER.

"Some specimens were obtained several years ago at Cocke's Millpond. None seen since that time." (1890d.)

55. OXYECHUS VOCIFERUS (Linnæus).
KILLDEER.

"The killdeer is a common bird in Alabama. It resides here during the whole year, and is the only one of the plover family, so far as I know, which builds its nest, or I should say—for it lays on the bare ground—rears its young in this vicinity. It lays several eggs on the ground. The young are what ornithologists call 'precoces,' or precocious, that is, running about like little chickens as soon as hatched. It goes in large bands sometimes in the winter; and may be found in low muddy places or upon old commons or bare fields." (Original notes. June 7, 1876). The stomach of a specimen taken on the day of this entry was reported to contain insects.

"Resident. Common. Breeds. A favorite nesting site of this species is on the 'bed' of a cotton or corn row, where it remains undisturbed by the laborer, save to frighten it off the nest once or twice while it is incubating, as he works his growing crop." (1890d).

No. 233. Female. Greensboro. Oct. 5, 1889. W. C. Avery.
No. 827. Male. Greensboro. May 2, 1891. W. C. Avery.
No. 828. Male. Greensboro. May 2, 1891. W. C. Avery.

56. COLINUS VIRGINIANUS VIRGINIANUS (Linnæus).
BOB-WHITE.
"Quail." "Partridge."

"On reading the experience of M. E. Allison with a Bob White I was reminded of an instance of a similar nature of the devotion of a male Bob White to his family duties.

Two years ago, in June, my friend, Dr. J. M. Pickett, an enthusiastic naturalist and a close observer of birds, informed me that a male Bob White had been incubating for some days, and that he constantly occupied the nest. Desiring to be an eye witness of this to me unusual fact, I accompanied the Doctor to the oatfield, where the nest was to be found. After a short search, he walking up one land and I another, I almost trod on the devoted pater-familias, when he fluttered from the nest and stood eyeing me suspiciously, a few feet off. I could not be mistaken as to the sex; the white markings of the head and the white throat attested it. After a few seconds he flew off to the adjoining woods, leaving a dozen white eggs which, in spite of his assiduous care, were not to be warmed into life. He sat upon them so long afterward that Doctor Pickett, suspecting they were spoiled, broke one of them, and finding they could not be hatched, destroyed them all, and put an end to the useless incubation. The female had evidently been killed, and the male returning to the unoccupied nest had taken the place of his mate, and filled it, till the eggs were destroyed." (1889c).

"Abundant still. Resident. Non-migratory. Breeds from first of May 'till first of October. Several broods reared by one pair. The male assists in incubation. It has been recorded by me, in a previous issue of the American Field, that a male Bob White was found incubating by Dr. J. M. Pickett, of Cedarville, Alabama. I rode six miles to witness this novel sight. The Doctor visited the nest frequently for several weeks, and finding that the eggs would not hatch, he destroyed them and relieved this faithful pater-familias from his hopeless endeavor to rear a brood. The female had perhaps been killed, and the male, finding the nest unoccupied, took the place of his mate, but after the eggs were cold and the embryos dead." (1890d).

The stomach of a specimen taken at Greensboro, Nov. 20, 1891, "contained peas and weed seeds."

Among the old Avery papers on file in the State Department of Archives and History, at Montgomery, is an unpublished manuscript on the "Cause of the Scarcity of Game," dated January 5, 1892. It is quoted below in full.

“‘Dock Lodge’ owns a dropper and shoots partridges; tells me he shoots every day for two or three hours, when he stops for dinner.

“‘Ike Woolen’ owns a setter; shoots every day.

“‘Buster Key’s son owns an Irish setter; shoots partridges.

“‘Fred and Ollis Evans shoot partridges; Fred tells me that he and Willie Brown (colored sportsman) went out one day last year and killed thirteen partridges. Fred says—and I believe him—that he and Willie killed more partridges than a party of sportsmen who were shooting the same day.

“‘We kept,’ said Fred, ‘in sight of Mr. Rush; and, when the covies were flushed and scattered, we marked down any birds that flew in our direction, or escaped the notice of Mr. Rush and his friend; and Doctor,’ continued Fred, ‘we killed more partridges than the party of white men.’

“‘Did you kill them all on the wing,’ said I.

“‘No sir,’ said he, ‘I killed three out of pine trees where they lit.’

“‘Can you shoot partridges well on the wing?’ said I.

“‘Yes,’ said Fred, ‘when a covey rises I generally get one’ (I know that Fred and Ollis shoot rabbits well).

“‘How many partridges have you killed this season, Fred?’

“‘Six. I was hunting rabbits, and the dogs scared up the partridges and I followed them up and shot them. My dogs never pass a flock of partridges without scaring ’em up, and I watch and see where the birds light, and shoot them.’

“Asbury McShann testified as follows: ‘I have killed two partridges this year.’

“‘Flying,’ said I.

“‘Yes, but they’s hard to kill flying.’

“‘How many times have you shot, as near as you can guess?’

“‘About a dozen times,’ said Asbury.

“Asbury is a poor boy and has not the ammunition to spare; yet he shoots at partridges and wastes his powder

and shot. His desire to become a wing-shot exceeds the wish to save his ammunition.

"Sam Gibson (colored sportsman), owns a pointer and a breech loader. Sam tells me that he has killed up to the first of January eighty partridges. I have no reason to doubt Sam's word, as Asbury McShann says that Sam, at a single shot, killed seven birds out of nine huddled under a bush, on Mr. J. McCrary's 'Jenkins' Place.' Of the two birds escaping, one was badly wounded. I have seen Sam shoot, myself, and I know that he shoots fairly well on the wing.

"Oliver Ward, colored sportsman, bought an Irish setter from John Cocke. Owns a breech loader, shoots birds on the wing. Killed seven on Thanksgiving Day. Why should not Oliver shoot well? He has fired more shots at birds since the emancipation of our slaves than the average white man.

"Jno. Paine (colored sportsman) owns an Irish setter bitch, purchased from Jno. Cocke for five dollars; also other pointing dogs. Oliver Ward informs me that John killed eight or ten partridges on Thanksgiving Day.

"Sol May (colored sportsman) owns a setter bitch or dog; at any rate he owns a pointing dog, for I have seen it. Sol shoots on the wing.

"The three last named gentlemen have exhausted their resources of eloquence to get a dog from me.

"Now Maus William, don't you think you ought to give your old servant a dog?"

"My price is twenty-five dollars,' said I, 'for a puppy two months old.' But may ruin overtake me and may my right hand be palsied when it receives a dollar from a 'nigger' for one of my noble dogs!

"Sam Lawson shoots partridges on the wing whenever he has the opportunity. This sportsman when quite small used to hold the horses for the Cobbs boys when they went shooting, and marked down birds for them. Thus he became enamored of field sports and wing shooting especially. Sam hunted many days during the season of '90 and '91 with one of Mr. Cobbs' dogs. Having lived on the place, Sam knew the dog, and thus managed to entice him off either by firing a gun in the neighbor-

hood or by whistling him out of the yard. This Sam continued to do till he was detected and informed that the next time the dog was taken off by him his gun would be appropriated by the owner of the dog.

"Sam killed a good many partridges last season, and up to Christmas 1891 had bagged more than the writer of these notes.

"Woody Lawson shoots partridges when time and opportunity permit. Woody lived many years with Dr. Cobbs and often accompanied him and the boys shooting, hence his love for wing-shooting.

"Ellis Ryan, as all know, shoots partridges and he makes heavy bags—too heavy, alas! for sportsmen to get an equal share of game. The desire to make big bags and to boast about it is doing as much as any other thing to exterminate our partridge. For my part, I take pleasure in saying that I killed on such or such a day two or three or four, or half a dozen birds, as the case may be. Though Ellis is a good shoot, if he confined himself to shooting at the covey on the wing alone, he could not get so many more birds than other shooters; but I have hunted with him and seen him find covey after covey on the ground, when his dog pointed. My presence alone prevented their destruction.

"I have mentioned some of the negro shooters in and around Greensboro who have taken to wing-shooting, to show that the scarcity of birds may be easily accounted for when we take into consideration the fact that the negro, having exterminated the squirrel, has turned his attention to poor little Bob White; and I fear greatly that this game little fellow must soon go the way of the squirrel.

"It is not only around Greensboro, but, if what the negroes themselves tell me can be believed, everywhere in the Blackbelt they are shooting partridges.

"It was not without cause last year, that, discovering this widespread and increasing pursuit (with gun and dog) of our little game bird, I felt that his destruction was not far off, though it has come much sooner than I expected.

"I crossed the river at Erie last year and found the covies in Greene County very small, and far between. Mr. Tunstall had been shooting there, it was told me. The truth is, the negroes were shooting and trapping the birds. Mr. Tunstall nor any other single shooter could perceptibly diminish the number of birds from Millwood to Erie, even if he had hunted every day. 'Many mickles make a muckle' as the Scotch say; it is this everlasting 'shooting of the many'—even though the average of game killed to the gun be small—that must wipe out our game and put an end to sport with gun and dog, unless some means can be devised to protect the birds.

"The drought has been alleged as the cause of the scarcity of birds this year, but I think I have stated the true cause, which will continue in the future, no matter whether the seasons are wet or dry, favorable or unfavorable, if some law is not passed to enable those to protect the birds on their land, who wish to save them from annihilation."

No. Male. Greensboro. Dec. 31, 1891. W. C. Avery.
No. 999. Female. Baldwin Co. Sept. 28, 1892. W. C. Avery.

57. MELEAGRIS GALLOPAVO SILVESTRIS (Vieillot).
WILD TURKEY.

"Twenty years ago the wild turkey, if not common, was not a very rare bird, in this part of Alabama. A drove of turkeys could be found almost anywhere, where there was a considerable body of the primeval forest still standing. They wandered out in every direction from these forests, especially in the breeding season, when the hens would leave their usual haunts in the woods, in search of nesting places. These would be sometimes two or three miles from their habitat, in some sedge field, or some thicket in a piece of woods not usually frequented by wild turkeys. This propensity of the hen to hide her nest from her own kind exposed her to the danger of having her eggs taken, or her young captured sometimes before they could fly.

"One day a young turkey, a few days old, was brought me by a negro who had caught it in the field about a mile

from the house, and two miles from the town of Greensboro. The wild turkey hen had hatched her brood somewhere in this field, where she would remain until fall, when she would take her young to the timbered land on the creek bottoms, two or three miles distant. I raised this young turkey. It proved to be a hen, was very gentle, feeding from my hand, and manifesting, after it was grown, none of the wild instincts of this wildest of birds.

"Another attempt at rearing and domesticating the wild turkey was made with equal success. This time, however, the eggs were hatched, and the young raised by a barnyard hen. I was out one day shooting squirrels, when, in a somewhat frequented spot, and where I should never have thought to find the nest of a wild turkey, a hen rose almost under my feet, and ran off through the woods. Examining the spot that she had just left I discovered her nest in the leaves not three feet from where I was standing. It contained ten eggs, in shape and size not differing from those of the tame turkey. There was no undergrowth in the woods around the nest; but a few bushes and briars grew over it. As I looked at the eggs the idea suddenly suggested itself that I might set these eggs under a domestic hen, and raise the young. I took the eggs from the nest, carried them home carefully, and, incubation having already advanced, they were hatched in about ten days, under a barnyard hen.

"To prevent the young turkeys from running away and being lost—for they are very wild when first hatched—I had an inclosure (of boards) about two feet high and twenty feet square. In the center of this, the hen was confined in a coop. The inclosed space gave the young turkeys room to exercise, and also prevented their escape, till they had lost their natural wildness, and had become gentle enough to feed from the hand, or to allow themselves to be handled without alarm. They were supplied chiefly with animal food in the form of curds, the whey having been pressed from milk after coagulation. They grew and thrived on this diet. Out of nine that were hatched, eight lived to be grown, one dying when about a month old, from a wound inflicted by the spur

of a barnyard cock. Under a different state of affairs these four hens and four cocks might have bred me a large flock of turkeys.

"It was just after our civil war, reconstruction of the states was undergoing its accomplishment, and the freed-man, armed with his sham-dam skelp, was ubiquitous; and my turkeys, as well as every other species of game or vermin, were objects of his pursuit. Squirrels were almost exterminated, except in the river bottoms. The mocking-bird, even, did not escape this promiscuous slaughter. I saw one day, on my place, two negro boys, about eighteen years old; they both had guns, and when interrogated as to the species of game their bags contained, they made some evasive answer. I thrust my hand into the sack and drew out four mocking-birds. Indignation seized me, and the reader may imagine that I used some very strong language at this ruthless destruction of a bird that the worst white boy in the South would hesitate to kill.

"My turkeys being very gentle, as I said, and daily attention and feeding from the hand preventing shyness, or any disposition to wander far from home in the breeding season, the hens laid in the yard. Sambo and his sister discovered the nests, and the eggs were stolen. Thwarted thus at first, the four hens wandered far from the house to find a safe retreat for their nests. One flew at least a half a mile every morning before she alighted, and fed along toward her nest, about two miles distant. She returned home to roost late in the evening; but after she went to sitting I did not see her again. She reared a brood, as I afterward learned from a neighbor, who saw, with her, in his field, a young wild turkey nearly grown, and as the field lay in the direction taken by my hen, I inferred that it must be my lost turkey and her brood. One of the other three hens brought home five nearly grown turkeys; but where she nested or how she escaped being killed, I knew not; I did know, however, that she was stolen from the yard fence where she roosted with her family. Silly bird! If she had known Sambo's thievish propensities as well as I knew them, she would have

sought the top of the tallest tree. The other hens did not rear any young. One of them, the following year, laid and hatched a dozen eggs. This time a white boy, the son of a Baptist preacher, who drove his father's cow to pasture every day in a field near my house, took a dozen little turkeys from the mother. The next day he brought his gun with him and shot the old hen. I happened to be in town when this Nimrod marched down the street with my turkey swinging on his back. I was standing across the street, and I heard some one say: "You got her, eh?" I walked across the street and, full of ire, I took my beautiful turkey from the rascal. He did not say a word; he was guilty and made no attempt to defend himself. I found my little turkeys at his reverend sire's but the poor little birds had been starved twenty-four hours, and they all died in spite of my effort to raise them.

"I shall mention one habit of these turkeys, and then I shall close this perhaps already too long communication. Whenever they were threatened by danger, even when a mile from the house, they rose with their loud cry of alarm "put! put! put!" which they never ceased to utter 'till they found themselves safely alighted in the yard. They roosted in a large post oak that had stood for fifty years in the yard, and which may have been a hundred years old. It was ivy-mantled from the ground; the ivy had covered the stem and most of the branches. There at least these persecuted birds were safe, and there their instinct taught them to fly from danger.

"Seeing that I could not keep my turkeys, I gave to a neighbor one of the cocks, a magnificent bird, so gentle that he allowed himself to be taken while feeding from my hand. The rest of the flock I killed myself.

"Thus went my turkeys; the oak where they roosted is gone; it was blasted by lightning; the hands that planted the ivy and the dear old house itself has vanished from earth, and death and the flames have done their work.

'Return! sad thoughts! return!

I wish to dream and not to weep'." (1886b).

"Common in suitable localities. Resident. Breeds." (1890d).

The last record of observation of the species at Greensboro is contained in the Doctor's original notes for October 25, 1890. In his notes for Sept. 16th-Oct. 2d, 1892, he writes: "Wild turkeys are not uncommon on Perdido Bay; much 'sign' was seen though no birds were observed or taken during my stay."

58. *ECTOPISTES MIGRATORIUS* (Linnæus).
PASSENGER PIGEON.

"Once countless thousands came in winter to feed upon the mast of our forests. Not one to my knowledge has been seen since the winter of 1887, when Mr. Edward Pasteur, of Greensboro, shot a single specimen in the corporate limits of the town. This bird was not accompanied by any other of his species.

"Since writing the observations above on the passenger pigeon I have been informed that a flock of about two hundred of these birds were seen the first week of November." (1890d).

59. *ZENAIDURA MACROURA CAROLINENSIS* (Linnæus).
MOURNING DOVE.

Common. Resident. Breeds." (1890d).

In the Doctor's original notes for Baldwin County, Sept. 16th to Oct. 2nd, 1892, appears the following: "*Zenaidura macroura* abundant in the pine woods; feeds on the mast of the long-leaved pine."

No. 1026. Female. Greensboro. Mar. 4, 1893. W. C. Avery.
No. 1087. Female. Greensboro. Oct. 13, 1893. W. C. Avery.

60. *CHÆMEPELIA PASSERINA TERRESTRIS* (Chapman).
GROUND DOVE.

"Rare. A few examples have been brought to me for identification. Does not breed here that I know." (1890d).

This species is known to breed in Autauga and Montgomery Counties and should certainly breed in Hale County where conditions are not noticeably different.

61. CATHARTES AURA SEPTENTRIONALIS (Wied).

TURKEY VULTURE.

"Turkey Buzzard."

"Common. Resident. Breeds. It is generally not believed that this vulture has the sense of smell acute, but from actual observation I think it must be guided by smell as well as by sight in finding its prey. During the summer past in July a small chicken, about the size of a Bob White, died, and was thrown out of the yard under some pines so dense that no eye could detect so small an object from above. About four days after this chicken had laid there a turkey vulture perched upon a fence near by and extended his neck in different directions, as if "feeling for the scent;" ascertaining the course of the odor, he flew toward the spot, lighted, passed some yards beyond the dead chicken, as a dog that seeks his prey by his olfactories, and then discovering his mistake, he turned and went directly to the object of his search. Mr. C. S. Brimley, this summer, removed the anal glands of a little striped skunk, and threw them about a hundred yards from my door. Several days after this tidbit was exposed, the piercing sight or the keen scent of a turkey vulture discovered its location and the vulture perched on the fence above it; a few minutes afterward he was joined by two others of his species. There they remained for some moments, till one of the number flew down and swallowed the coveted morsel. It seemed to me that the sense of smell guided these vultures in this instance; and no one, who observes them closely, can escape the conclusion that turkey vultures depend much upon the sense of smell to find their prey." (1890d).

62. CATHARISTA URUBU (Vieillot).

BLACK VULTURE.

"Carrion Crow."

"Common. Resident. Breeds." (1890d).

"Saw black vulture feeding her young by regurgitation, as a pigeon." (Original notes. Sept. 1, 1890).

"Found nest of black vulture in a hollow of a tulip tree (*Liriodendron tulipifera*). The two eggs lay on

the bare ground, there being no nest. The set was sent to the National Museum." (Original notes. April 11, 1891).

63. ELANOIDES FORFICATUS (Linnæus)
SWALLOW-TAILED KITE.

"Not common. Once abundant. It may breed along the Warrior River, where it is now occasionally seen." (1890d).

CIRCUS HUDSONIUS (Linnæus.)
MARSH HAWK.
"Rabbit Hawk."

Concerning this species, Dr. Avery wrote in his notebook: "On March the 17th (1888) flushed a marsh hawk that had just caught a partridge; shot at the hawk and wounded it. This is the first time I ever knew *C. hudsonius* to catch so large a bird." The specimen listed below was shot with a mockingbird in its talons.

"Common. Winter resident." (1890d).

No. 220. Female. Greensboro. Sept. 17, 1889. W. C. Avery.

65. ACCIPITER VELOX (Wilson).
SHARP-SHINNED HAWK.
"Little Blue Darter." "Pigeon Hawk."

A male taken 10 miles west of Greensboro, Nov. 26, 1877, forms the basis of the first journal record of this species. Another specimen, taken Nov. 11, 1887, 10 miles southwest of Greensboro, is of interest because Dr. Avery carefully notes that its "stomach contained remains of vesper sparrow." Of the specimens listed below, the stomach of No. 1025 "contained portion of bird" while that of No. 1038 contained bird debris.

"Not common. Resident. Breeds." (1890d).

No. 261. Female. Greensboro. Nov. 9, 1889. W. C. Avery.
No. 950. Male. Greensboro. Nov. 5, 1891. W. C. Avery.
No. Male. Greensboro. Nov. 6, 1892. W. C. Avery.
No. 1025. Male. Greensboro. Feb. 24, 1893. W. C. Avery.
No. 1038. Female. Greensboro. Apr. 3, 1893. W. C. Avery.

66. ACCIPITER COOPERI (Bonaparte).

COOPER'S HAWK.

"Chicken Hawk." "Big Blue Darter."

The first specimen of this hawk recorded was an adult male taken at Greensboro, Nov. 13, 1877. Ten years later (Aug. 30, 1887) the Doctor launches a tirade, not undeserved, against this species. He writes: "No. 31 was shot while flying across the yard. A *cooperi* is more destructive of game and fowls than any hawk. There is no telling how many pigeons this hawk has taken from me this summer. On the 28th I fired twice at one and in less than 15 minutes it returned and caught a pigeon. Nothing can exceed the daring of Cooper's hawk. While not as swift a flyer as the falcon, it is nevertheless very destructive of fowls and game. I believe it destroys more game and fowls than all the other species of hawks together.

"One for instance has broken up the pigeons in the little box against the gable end of the kitchen: it has caught the old birds (cock and hen) and has caught the young ones also. May my right hand forget her cunning if I kill them not!"

Sept. 13th, following, another specimen was taken, the stomach of which contained "parts of a sand lizard." Under this entry is written: "this hawk was killed *flagrante delicto*. She pursued a pigeon in the yard, knocked it to the ground, and would have captured it but for my presence. She pitched on the limb of a pine just outside of the front gate, when she came to grief by a charge from my gun. Specimen was mounted.

The Doctor evidently delighted in taking a large series of this species. Here is another note, entered Sept. 27, 1887, after the record of No. 35: "This hawk was a large female; raked at pigeons; lit in a pine near the house; flew off into the grove; just as I came out of the house with my gun she circled high over the yard. I cocked and presented, but having in my left hand a chamois skin and a bunch of keys, I found on looking down the barrel to aim at the hawk that the skin obstructed the line of aim; I had to throw it down, recover my aim

and fire. The hawk was flying fast and had made some twenty yards more before I pressed the trigger; she must have been sixty yards from me, but a number five shot took her right wing close to the body, and down she came with the cry of distress peculiar to Cooper's hawk when severely wounded: 'Chiteree! Chiteree! Chiteree!' Whop! She struck the ground loud enough to be heard a hundred yards."

Such wealth of detail seems to indicate that the Doctor derived more than the ordinary collector's pleasure from the taking of specimens of this species. It might be inferred too that he loved his pigeons. But it is now well known that Cooper's hawk is really chargeable with most of the pilfering of poultry yards usually blamed upon the slow-flying, rodent-eating, broad-winged, red-shouldered, and red-tailed hawks.

"Common. Resident. Breeds. This hawk seems to be the greatest enemy of domestic fowls. But above all birds, he seems to prefer the tame pigeon. Two or three times a week my pigeons have to fly for their lives. When very hungry a Cooper's hawk will make repeated attempts at capturing his quarry before he will desist. Several years ago I fired both barrels of my gun at one of these hawks while in pursuit of my pigeons. In less than thirty minutes he returned and carried off a pigeon." (1890d.)

- No. 35. Female. Greensboro. Sept. 27, 1887. W. C. Avery.
- No. 179. Male. Greensboro. Aug. 1, 1889. W. C. Avery.
- No. 232. Female. Greensboro. Sept. 30, 1889. W. C. Avery.
- No. 399. Female. Greensboro. Mar. 5, 1890. W. C. Avery.
- No. 440. Female. Greensboro. Mar. 12, 1890. W. C. Avery.
- No. 812. Male. Greensboro. Feb. 8, 1891. W. C. Avery.
- No. 946. Female. Greensboro. Oct. 2, 1891. W. C. Avery.
- No. 1020. Male. Greensboro. Feb. 3, 1893. W. C. Avery.

67. *BUTEO BOREALIS BOREALIS* (Gmelin).
RED-TAILED HAWK.

It is interesting to find that Dr. Avery's first specimen of this bird, taken Jan. 20, 1878, 10 miles west of Greensboro, was sent to Dr. Elliott Coues.

This note, published in 1890, would indicate that the Doctor paid little attention to Oology "Winter resident. Has never been found breeding here to my knowledge."

(1890d). The red-tail is a common breeder in Autauga County and undoubtedly is to be found resident in Hale.

After the entry of specimen No. 1022, listed below, in his catalogue, Dr. Avery wrote the following note on the food of the red-tail that has been amply substantiated by the investigations of Dr. A. K. Fisher of the United States Biological Survey:

The stomach of this buzzard contained mice (*Arvicola pinetorum*) and insects. This red-tailed buzzard is known as the hen hawk. It occasionally preys upon fowls; but the harm it may do by its visits to the farmer's poultry yard is more than compensated by the vermin it destroys. But to the superficial observer a buzzard is a hawk and must atone for his resemblance by his death on all occasions.

"I have examined the contents of many stomachs of this species; and I have yet to find one containing a domestic fowl."

- No. 330. Male. Greensboro. Dec. 28, 1889. W. C. Avery.
- No. 346. Female. Greensboro. Jan. 4, 1890. W. C. Avery.
- No. 350. Male. Greensboro. Jan. 18, 1890. W. C. Avery.
- No. 366. Male. Greensboro. Feb. 6, 1890. W. C. Avery.
- No. 370. Male. Greensboro. Feb. 12, 1890. W. C. Avery.
- No. 1019. Male. Greensboro. Jan. 8, 1893. W. C. Avery.
- No. 1021. Male-juv. Greensboro. Feb. 6, 1893. W. C. Avery.
- No. 1022. Male. Greensboro. Feb. 9, 1893. W. C. Avery.
- No. 1027. Female-juv. Greensboro. Mar. 10, 1893. W. C. Avery.

68. BUTEO LINEATUS LINEATUS (Gmelin).
RED-SHOULDERED HAWK.

The collection contains the following three specimens of the typical subspecies:

- No. 189. Female-adult. Greensboro. Aug. 19, 1889. W. C. Avery.
- No. 358. Female. Greensboro. Jan. 28, 1890. W. C. Avery.
- No. 1109. Male. Greensboro. Dec. 27, 1893. W. C. Avery.

The stomach of No. 1109 contained "remnants of a frog and of grasshoppers."

69. BUTEO LINEATUS ALLENI (Ridgway).
FLORIDA RED-SHOULDERED HAWK.

"Common. Resident. Breeds." (1890d).

As this species is so universally known to the country people as "chicken hawk," it is interesting to note that

the stomach of a specimen (No. 38) taken near Greensboro, Nov. 19, 1887, was "filled with grasshoppers and beetles." The stomach of No. 959, listed below, "contained a good gill of insects and a snake about 6 inches long."

- No. 151. Male-juv. Greensboro. May 25, 1889. W. C. Avery.
- No. 182. Female-juv. Greensboro. Aug. 10, 1889. W. C. Avery.
- No. 188. Male. Greensboro. Aug. 17, 1889. W. C. Avery.
- No. 221. Female. Greensboro. Sept. 19, 1889. W. C. Avery.
- No. 226. Female. Greensboro. Sept. 28, 1889. W. C. Avery.
- No. 279. Female. Greensboro. Nov. 26, 1889. W. C. Avery.
- No. 331. Male. Greensboro. Dec. 28, 1889.
- No. 959. Female. Greensboro. Dec. 4, 1891. W. C. Avery.

70. BUTEO PLATYPTERUS (Vieillot).
BROAD-WINGED HAWK.

"Rare. Only one specimen has come under my observation. That was shot and mounted by Dr. J. M. Pickett, of Cedarville, Alabama. I have the specimen in my collection." (1890d).

Unfortunately this specimen has since disappeared.

71. HALIÆTUS LEUCOCEPHALUS LEUCOCEPHALUS
(Linnæus).
BALD EAGLE.

"Eight years ago while shooting five miles west of Greensboro, a bald eagle flew over my head at scarcely forty feet high. It took but a second to cock my gun and present, but my horse, for the first time that I had known him, reversed ends as quick as thought; and I found myself with my face and my gun turned in the opposite direction from that which I had intended. The eagle continued on his way and I have not seen him since. My nephew had been shooting from my horse, and had poked the gun between his ears, perhaps, repeated shocks from charges fired too close to his ears, or perhaps grains of powder burning him, had made him gun shy and caused me to lose the only specimen of the bald eagle I ever saw. Moral reflection: Don't lend your horse, or dog, or gun." (1890e).

"Bald eagles were common on the sea coast of Baldwin County." (Original notes. Sept. 16-Oct. 2, 1892.)

72. FALCO PEREGRINUS ANATUM (Bonaparte).
DUCK HAWK.

The first mention of this species by Dr. Avery is the record of two individuals at Greensboro, Sept. 10, 1886; the last record is of a single bird seen on the Gulf Coast of Baldwin County, Sept. 22, 1892. The species was evidently of considerable interest to the Doctor for he published three articles concerning it. These are quoted here in full.

The first appeared under the title "Wiles of the Peregrine Falcon," and was published in the old "Ornithologist and Oologist" which has long since expired. It follows:

"While shooting one day, as I entered a large field, my attention was attracted to a flock of killdeer, flying high over head. They were as noisy as usual and flew in different directions, as if they had been disturbed and scattered.

"Far below the killdeers, came rapidly towards me a peregrine falcon, one eye glancing up at a killdeer many feet above him. His long pointed wings beat the air with short, quick strokes, as they bore him with increasing speed till he reached a point just below his unwary victim, when, as an arrow from a bow, he shot upwards, passing not a foot ahead of the incoming killdeer. The bird literally flew into the outstretched talons that seized and bore it several hundred yards to the top of a tall oak tree.

"Not many minutes had elapsed before I was standing under the tree. A well directed charge of No. 8 shot was launched at the hawk; the killdeer fell from his grasp; he fell to the under side of the limb on which he was perched, quivered a few seconds, released his hold, and followed his dead quarry to the ground.

"On another occasion, I was shooting ducks in a slough in the Warrior bottom, when I heard an unusual noise, so loud and so continued was it that I took it to be the scream of some large bird in distress—a pileated woodpecker perhaps. I hastened towards the place whence the cries proceeded. As I waded into the water, I saw

a peregrine falcon hovering above the timber, as a fish hawk balances himself before he descends. I started a black duck from under a log not ten feet from me; as I proceeded other ducks left their hiding places and sought safety in flight. They were aware of the danger overhead in the shape of the falcon, and all the frightful screams of the cunning hawk had not caused them to leave the water. My presence in their very midst had alarmed them and so soon as they were on the wing the falcon darted like lightning after them, and disappeared through the timber with their pursuer close behind them.

"The capture of the killdeer by the falcon, in the manner above described, was certainly astonishing. It was evidently a ruse, as the bird did not see its enemy, 'till like an apparition, he shot up just ahead and the two taloned feet were extended to receive it.

"The falcon resorts, also, to cunning when he seeks to frighten the ducks from the water by screams louder than I had supposed it possible for such a bird to make.

"Sometimes the shooter is surprised by the presence of the peregrine falcon as he falls, as it were, from the very clouds.

"Once, upon the coast of North Carolina, near Nay's Head, I had shot several willets and was reloading my muzzle, when a peregrine falcon stooped at a winged willet that stood in the water not twenty yards from me. The wounded bird escaped by squatting suddenly. The upward flight of the falcon seemed to me not less rapid than had been his descent. I had one barrel loaded, the contents of which I sent after him without apparent effect, as he towered in a few seconds beyond the reach of danger.

"One among other occasions, when this marauder has suddenly appeared on the scene, I shall never forget. I had one day scattered a covey of partridges *Colinus virginianus* in an open field, and had hunted the single birds for some time with varied success; now killing, now missing a bird. Finally my dog pointed in a sedge field, at least a half a mile from the nearest woods. I flushed the bird and missed it; almost simultaneously with the shot, a

peregrine falcon stooped from the sky, coming downward and directly behind the whirring partridge, he passed by me swift as the leaden shower I had just sent in vain after poor Bob White; overtaking but missing his quarry before it had flown two hundred yards. It seemed to me that the falcon must have flown with at least four times the speed of the partridge, and that he flew at least a half mile while the latter was going two hundred yards.

That bird was bagged that day by neither shooter nor hawk. I marked it down; but I had not the heart to flush and shoot at it again when it had escaped the leaden missiles hurled after it, and the sharp talons of the hungry falcon that followed in their wake." (1887).

Next came this extended note in "Birds Observed in Alabama":

"Rare. Generally seen in autumn and winter, in the wake of the wild duck. His presence is a good indication that there are ducks somewhere not far distant. It has occurred to me once to see one of these falcons capture a tame pigeon. There were two of them together, tiercel and falcon, male and female, as might be easily seen from their difference in size. They fell like thunderbolts from the clouds; the pigeons, the object of their pursuit, perceived them and took wing; the female falcon leading struck a pigeon and, fastening to it, was borne downward some distance; but, making her hold secure, she rose with her quarry and flew more than half a mile, lighting on the top of a tall gum (liquidambar). Two or three years ago I witnessed another exciting chase of these tigers of the air, after my pigeons. Again came a pair, tiercel and falcon; this time, however, the pigeons discovered their pursuers in time to rise above them. This advantage was not maintained long, for both falcons, following swiftly behind and below their destined quarry, began to "ring" or ascend in rapid circles; the male got his "pitch" first, but before he had attained it, the pigeons were perhaps two hundred yards away and imagined themselves safe; but to close his long, pointed wings, and to dash through their terrified

ranks seemed to me to require but two or three seconds. Indeed, so swift was his flight that the pigeons appeared, in comparison, scarcely to move. He missed his bird, however, and now it was his mate's turn. Pigeons and falcons vanished from my view behind some trees; but they came into sight again in a few seconds, one of the falcons about a quarter of a mile off descending to the ground a few feet behind a pigeon, which was captured without doubt, as escape seemed impossible. What grand sport it would be to have well-trained falcons to pursue our pinnated grouse! Why does not some sportsman take the initiative, who can afford it? Judging from the performances of the wild birds in capturing their prey, shooting game to pointers or setters is tame sport compared with capturing it with falcons." (1890e).

The following was published in 1893 in answer to a question in the "Ornithologist and Oologist":

"What is authentically known of the rapidity of flight by different species of birds, and which is considered the swiftest?"

"To Mr. Smith's question, I believe it may be answered that the falcons are the swiftest, and as far as my experience goes it seems to me that the duck hawk is swifter than any other species.

"It easily overtakes any bird within the range of its vision, and does so with incredible velocity.

"A Bob White, once fired at by me, was overtaken by a duck hawk in the distance of two hundred yards, though the hawk apparently had to fly three times as far as its quarry before it reached the latter.

"On another occasion two duck hawks were seen pursuing a flock of tame pigeons. These were far above their pursuers, and while in that position were safe. But the falcons began to 'ring,' or ascend in circles 'till the smaller bird, the male, got his 'pitch' first, then, with astonishing swiftness, he overtook the pigeons, whose rapidity of flight is very great. When the falcon began his swoop, at about an angle of twenty degrees with the flight of the pigeons, these, though going very fast, seemed in comparison with the progress of their pursuer

scarcely to move, as he shot like an arrow through the flock. Other instances of the swiftness of flight by Falcons might be given but these seem to show that no bird flies as fast as the falcon." (1893b).

73. *FALCO COLUMBARIUS COLUMBARIUS* (Linnæus).
PIGEON HAWK.

"Rare. I saw one of these falcons last year pursuing tame pigeons. His performance was poor compared to the brilliant work of the peregrine." (1890e).

The only original reference to this species that could be found is one of the Doctor's Baldwin County notes that is not very authoritative: "While returning from Dauphin Island at dawn on Sept. 22d, a falcon was seen pursuing a tern off the shore of the Gulf. It was supposed from size to be the pigeon hawk." This was in 1892.

The stomach of No. 1106, listed below, "contained remains of a small bird."

No. 947. Female. Greensboro. Oct. 6, 1891. W. C. Avery.

No. 1106. Male-juv. Greensboro. Dec. 22, 1893. W. C. Avery.

74. *FALCO SPARVERIUS SPARVERIUS* (Linnæus).
SPARROW HAWK.

"Common. Resident. Breeds." (1890e).

The stomach contents of an adult male taken Mar. 17, 1888, near Greensboro, were recorded as "grasshoppers and crickets." It is well known that the food of this innocent little hawk consists principally of such insects during the warmer months, while mice enter largely into its bill of fare during the winter, but nevertheless the slaughter of the species continues.

No. 280. Male. Greensboro. Nov. 28, 1889. W. C. Avery.

No. 801. Male. Greensboro. Nov. 1, 1890. W. C. Avery.

No. 953. Male. Greensboro. Nov. 21, 1891. W. C. Avery.

No. 963. Female. Greensboro. Dec. 13, 1891. W. C. Avery.

No. 972. Male. Greensboro. Dec. 26, 1891. W. C. Avery.

No. 1003. Male. Baldwin Co., Oct. 2, 1892. W. C. Avery.

No. 1005. Sex (?). Baldwin Co. Oct. 2, 1892. W. C. Avery.

75. PANDION HALIAETUS CAROLINENSIS (Gmelin).

OSPREY.

"Fish Hawk."

"Observed only a few times by me in this country." (1890e).

The foregoing note was published by the Doctor before his trip to the Gulf Coast in 1892. In his journal for the period Sept. 16-Oct. 2, he writes: "Many ospreys were seen on the Gulf Coast and on Perdido Bay; on Soldier Creek there were many nests in the pines and cypresses."

76. ALUCO PRATINCOLA (Bonaparte).

BARN OWL.

"Rare in this country, as far as I know, except six miles south of Greensboro, on Mr. James Sledge's place, where these owls are abundant. A quantity of their castings may sometimes be gathered under the trees in his grove, where the owls are found. They feed on rats and mice." (1890e).

77. ASIO WILSONIANUS (Lesson).

LONG-EARED OWL.

"Rare. Three specimens have come under my observation; two shot by Mr. John Cocke of this county and one by myself; flushed in a cornfield on the edge of a thicket, while shooting. Time, winter." (1890e).

The stomach of the specimen listed below "contained hair and bones of mice." A note appended to the entry of this specimen in the Doctor's original catalogue reads: "It was told me that eight or ten of these owls were seen in a flock, and that three or four might have been killed at a shot." A little farther down the page is penned: "On Saturday, March 3d, 1894, a badly shot specimen of *Asio wilsonianus* was brought to me."

No. 1108. Sex (?). Greensboro. Dec. 27, 1893. W. C. Avery.

78. ASIO FLAMMEUS (Pontoppidan).

SHORT-EARED OWL.

"Tolerably common some years; others not seen at all. Frequently flies about in the daytime, and is flushed from the tall grass of meadows and marshes. A half

dozen or more are often seen together. Winter resident." (1890e).

The stomach of the specimen listed "contained a male redwing."

No. 958. Female. Greensboro. Dec. 4, 1891. W. C. Avery.

79. *STRIX VARIA VARIA* (Barton).
BARRED OWL.

A specimen in the collection, bearing no label, is referable to this subspecies. It is thought to be No. 100, taken by Dr. Avery at Greensboro, Oct. 18, 1888.

80. *STRIX VARIA ALLENI* (Ridgway).
FLORIDA BARRED OWL.

"Common. Resident. Breeds." (1890e).

No. 835. Female. Greensboro. May 6, 1891. W. C. Avery.

No. 951. Female. Greensboro. Nov. 18, 1891. W. C. Avery.

No. 992. Female-juv. Greensboro. Sept. 7, 1892. W. C. Avery.

81. *OTUS ASIO ASIO* (Linnæus).
FLORIDA SCREECH OWL*.

The first record found of the screech owl is the journal entry of specimen No. 6 (old series), an adult female taken at Greensboro, June 3, 1876. After a description of the eyes, bill and nails, and a note on the stomach contents, "debris of beetles," is written: "The screech owl is found in Alabama about barns and near dwelling houses. It builds for years in the same hollow tree."

The next specimen was taken just two weeks later, in the same locality, and under the record is appended: "This bird has two plumages which do not characterize either male or female; both being indifferently clad now in one, now in the other: i. e., the male may sometimes be found with a reddish or rufus plumage, and the female may sometimes have the same, sometimes the male may be mottled and then again the female may be mottled. No. 6 is an instance of a female with the rufus plumage, and the present specimen is a female with the mottled plumage."

*Ridgway, Birds of N. and Mid. Am., Part VI, p. 687, Wash. 1914.

The catalogue record shows that the stomach of another specimen, a female taken Dec. 23, 1893, at Greensboro, contained beetles, but the beneficent influence of the screech owl, in spite of the superstition concerning it, is so well known, that its mouse and insect-eating proclivities need not be enlarged upon here. However, it does seem strange that Dr. Avery's only published note on the species should consist of just these three words:

"Common. Resident. Breeds." (1890e).

- No. 271. Female. Greensboro. Nov. 13, 1889. W. C. Avery.
- No. 527. Male-hornot. Greensboro. May 31, 1890. W. C. Avery.
- No. 983. Male. Greensboro. Jan. 27, 1892. W. C. Avery.
- No. 1009. Male. Greensboro. Dec. 12, 1892. W. C. Avery.
- No. 1011. Male. Greensboro. Dec. 24, 1892. W. C. Avery.
- No. 1023. Male. Greensboro. Feb. 21, 1893. W. C. Avery.
- No. 1024. Male. Greensboro. Feb. 23, 1893. W. C. Avery.
- No. 1037. Male. Greensboro. Feb. 15, 1893. W. C. Avery.

82. OTUS ASIO NÆVIUS (Gmelin).
SCREECH OWL.*

The following specimen is referable to this subspecies:

- No. 976. Female. Greensboro. Jan. 18, 1892. W. C. Avery.

83. BUBO VIRGINIANUS VIRGINIANUS (Gmelin).
GREAT HORNED OWL.

"Rare. Resident. Breeds." (1890e).

- No. 962. Female. Greensboro. Dec. 8, 1891. W. C. Avery.
- No. 990. Male. Greensboro. July 19, 1892. W. C. Avery.
- No. Odd specimen with no label.

84. CONUROPIS CAROLINENSIS (Linnæus).
CAROLINA PAROQUET.

"Has not been seen in this country for many years. Once common." (1890e).

Probably the Doctor had to accept hearsay evidence as to the former abundance of this species, for it is doubtful that he ever saw a Carolina paroquet in life.

85. COCCYZUS AMERICANUS AMERICANUS (Linnæus).
YELLOW-BILLED CUCKOO.
"Rain Crow."

"Common. Summer resident. Breeds." (1890e).

*Ridgway, Birds of N. and Mid. Am., Part VI, p. 690, Wash. 1914.

Sept. 11. 1889, Dr. Avery noted in his journal that he saw "a half dozen yellow-billed cuckoos feeding on cotton worms."

No. 500. Female. Greensboro. May 4, 1890. W. C. Avery.

No. 595. Male. Greensboro. Aug. 22, 1890. W. C. Avery.

No. 604. Male. Greensboro. Aug. 23, 1890. W. C. Avery.

86. CERYLE ALCYON (Linnæus).
BELTED KINGFISHER.

"Common. Summer resident. Breeds." (1890e).

This note is too restricted, for the kingfisher is a permanent resident in Alabama.

The Doctor recorded the species as common on Perdido Bay during his stay in Baldwin County, Sept. 16 to Oct. 2, 1892.

No. 584. Female. Greensboro. Aug. 16, 1890. W. C. Avery.

87. CAMPEPHILUS PRINCIPALIS (Linnæus).
IVORY-BILLED WOODPECKER.

"In 1866, while I was stalking some mallards in the Cypress Slough, near the Warrior River, and ten miles west of Greensboro, a bird which I thought was a pileated woodpecker (called here log-cock), flew by me, but a strange note made me at once suspect the identity of the bird, and in two seconds a female ivory-billed woodpecker instead of the mallards was secured by me. This is the only instance known to me of its occurrence in this country." (1890e).

88. DRYOBATES VILLOSUS AUDUBONI (Swainson).
SOUTHERN HAIRY WOODPECKER.

"Common. Resident. Breeds." (1890e).

No. 174. Male. Greensboro. July 24, 1889. W. C. Avery.

No. 596. Male. Greensboro. Aug. 22, 1890. W. C. Avery.

No. 693. Female. Greensboro. Sept. 20, 1890. W. C. Avery.

No. 713. Female. Greensboro. Sept. 29, 1890. W. C. Avery.

No. 823. Male. Greensboro. Apr. 11, 1891. W. C. Avery.

No. 889. Male. Greensboro. Aug. 11, 1891. W. C. Avery.

No. 1063. Male. Greensboro. Sept. 4, 1893. W. C. Avery.

89. *DRYOBATES PUBESCENS PUBESCENS* (Linnæus).
SOUTHERN DOWNY WOODPECKER.

"Common. Resident. Breeds." (1890e).

- No. 396. Male. Greensboro. Mar. 5, 1890. W. C. Avery.
- No. 404. Female. Greensboro. Mar. 10, 1890. W. C. Avery.
- No. 428. Male. Greensboro. Mar. 19, 1890. W. C. Avery.
- No. 599. Female. Greensboro. Aug. 22, 1890. W. C. Avery.
- No. 759. Male-juv. Greensboro. Oct. 16, 1890. W. C. Avery.
- No. 777. Male. Greensboro. Oct. 21, 1890. W. C. Avery.

90. *DRYOBATES BOREALIS* (Vieillot).
RED-COCKADED WOODPECKER.

"Common in the pine woods north of Greensboro. It was discovered last September, the 20th, in a growth of pines, in the Warrior River bottom, near Millwood. Mr. C. S. Brimley of Raleigh, North Carolina, who was making biological explorations here for the Agricultural Department at Washington, discovered it there, where it had previously escaped my observation. Resident. Breeds. (1890e).

The stomachs of a male and female of this species, taken Jan. 4, 1891, near Greensboro, contained, respectively, "red ants" and "insects:"

Red-cockaded woodpeckers were "seen frequently" during the Doctor's stay in Baldwin County, Sept. 16 to Oct. 2, 1892.

- No. 692. Male. Greensboro. Sept. 20, 1890. W. C. Avery.
- No. 809 (?). Female. No label.

91. *SPHYRAPICUS VARIUS VARIUS* (Linnæus).
YELLOW-BELLIED SAPSUCKER.

Dr. Avery's first specimen of this woodpecker, so far as the record goes, was taken Jan. 10, 1878, at Greensboro. Oct. 8, 1887, another specimen was recorded whose "stomach contained only ants."

"Common during the autumn migration." (1890e).

- No. Bis40. Female. Greensboro. Jan. 10, 1878. W. C. Avery.
- No. 230. Male. Greensboro. Sept. 28, 1889. W. C. Avery.
- No. 240. Male. Greensboro. Oct. 9, 1889. W. C. Avery.
- No. 241. Male. Greensboro. Oct. 9, 1889. W. C. Avery.
- No. 403. Male. Greensboro. Jan., 1886. W. C. Avery.
- No. 774. Female. Greensboro. Oct. 20, 1890. W. C. Avery.
- No. 779. Male juv. Greensboro. Oct. 22, 1890. W. C. Avery.
- No. 795. Male. Greensboro. Oct. 25, 1890. W. C. Avery.

92. PHLÆOTOMUS PILEATUS PILEATUS (Linnæus).
PILEATED WOODPECKER.
"Log-Cock."

"Not common, though once abundant. Found in heavily timbered localities; chiefly in the river bottom." (1890e).

Writing of Baldwin County, Sept. 16-Oct. 2, 1892, the Doctor noted: "Pileated woodpecker not common; one specimen was taken at 'Rambler's Rest' on Perdido Bay."

No. 1004. Male. Baldwin Co. Oct. 2, 1892. W. C. Avery.

No. 1063. Female. Greensboro. Sept. 8, 1893. W. C. Avery.

93. MELANERPES ERYTHROCEPHALUS (Linnæus).
RED-HEADED WOODPECKER.
"Shirt-Tail."

After cataloging an adult male taken at Greensboro, June 9, 1876, as No. 14 of his first series, Dr. Avery writes:

"Stomach contained debris of insects, and blackberry seeds.

"When I was a boy the red-headed woodpecker was a very common bird. Thousands of these harmless birds have been destroyed, under the pretext of saving the fruit and the Indian corn. I believe that when they peck into the latter it is to search for a worm that destroys the corn: be that as it may the red-headed woodpecker does more good by the destruction of insects than harm by eating a little fruit or corn even.

"No bird affords a better mark for wanton shooters than this beautiful bird. Thousands perish because they are a good mark for a rifle shot.

"There used to be hundreds in Alabama where there is one now. When we destroy our friends, our enemies, the cotton worms, increase until their number is legion.

"My country thou art doomed! The degraded African destroys every day with ruthless hand thy crown of trees, thy noble forests. Even the mockingbird does not escape the senseless, soulless negro. Not long after the war, I saw two negro boys with guns, both of them at least seventeen or eighteen years old. I asked one of them what he had in his bird-bag. He told me (I think) that

he had a rabbit. I put my hand into his pouch and pulled out—Oh, horrors!—four mockingbirds.”

In the summer of 1888 a specimen was catalogued without date, the entry followed by this note:

“My little nephew, Willie Cobbs, shot this bird, a pet, which had nested in my lot. *M. erythrocephalus* (red-headed woodpecker) is scarce in this locality. When I was a boy it was one of the commonest birds of this country.”

The foregoing statements are especially interesting in view of the Doctor's terse published note on the species which appeared in 1890: “Abundant. Summer resident. A few remain during the winter. Breeds.” (1890e).

It is doubtful that there has been any great diminution in numbers of this woodpecker, in spite of its unwonted persecution, because its natural enemies are comparatively few and with the “deadening” of timber incident upon the opening up of new lands its food supply has been augmented and the number of desirable nesting sites increased.

The present writer deplores with the Doctor the wanton destruction of our beneficial birds, that continues even at this time, but he would point out that the negro is not alone responsible. After more than thirty years of educational work on the part of the United States Department of Agriculture, the ornithological societies, and lesser agencies, it is indeed a sad commentary upon our civilization that our whites still persist in using as targets the protectors of our crops, orchards and forests.

No. 554. Sex (?). Greensboro. July 28, 1890. W. C. Avery.

No. 829. Male. Greensboro. May 2, 1891. W. C. Avery.

No. 832. Male. Greensboro. May 4, 1891. W. C. Avery.

94. CENTURUS CAROLINUS (Linnæus).
RED-BELLIED WOODPECKER.

After the record of No. 51, listed below, the stomach of which “contained portions of acorns and beetles,” occurs this note:

“This bird is common in this country; but like its relative the red-headed woodpecker (*Melanerpes erythrocephalus*) it is becoming every year scarcer.”

"Common. Resident. Breeds." (1890e).

Recorded as "quite common" in Baldwin County, Sept. 16 to Oct. 2, 1892.

- No. 51Bis. Male. Greensboro. Feb. 7, 1878. W. C. Avery.
 No. 638. Male. Greensboro. Sept. 3, 1890. W. C. Avery.
 No. 914. Male hornot. Greensboro. Sept. 8, 1891. W. C. Avery.
 No. Odd specimen without label.

95. COLAPTES AURATUS AURATUS (Linnæus).

FLICKER.

"Yellow Hammer."

There is only one specimen of the resident subspecies in the collection; it is listed below.

- No. 866. Male-hornot. Greensboro. June 13, 1891. W. C. Avery.

96. COLAPTES AURATUS LUTEUS (Bangs).

NORTHERN FLICKER.

"Yellow Hammer."

"Abundant. Winter resident. A few remain during summer and nest here." (1890e).

Subspecies *luteus* was not described until 1898, so the above note was absolutely correct at the time it was published. It is known now, however, that *auratus* is the breeding bird while *luteus* is only a winter visitant.

- No. 49Bis. Female. Greensboro. Jan. 28, 1878. W. C. Avery.
 No. 318. Female. Greensboro. Dec. 19, 1889. W. C. Avery.
 No. 351. Male. Greensboro. Jan. 22, 1890. W. C. Avery.
 No. 817. Female. Greensboro. Mar. 24, 1891. W. C. Avery.
 No. Odd specimen—no data.

97. ANTROSTOMUS CAROLINENSIS (Gmelin).

CHUCK-WILL'S WIDOW.

Entered under the record of No. 34 (old series), an adult female, taken at Greensboro, Sept. 3, 1877, the stomach of which contained "debris of large beetles," is this note:

"This bird is found in Alabama only in warm weather; appearing here in the spring and leaving on the approach of cold weather. It is insectivorous hence it must go to some climate farther south, where insects abound during our winter."

Of course the Doctor had reference to flying insects such as comprise the food of the goatsuckers.

The stomach of No. 49, listed below, also contained "debris of beetles."

"Common. Summer resident. Breeds." (1890e).

"On May third (1890), shot either a male chestnut sided warbler or a male black-throated green warbler. Lost it. While trying to find it flushed *Antrostomus carolinensis* from her nest. Have since flushed her three times from her nest, and have not yet found that she has carried her egg off in her mouth as Davie quotes Audubon as saying." (Original notes.)

"May 10, 1891. Sent Captain Bendire an egg of the chuck-will's widow. Nest found on the bare ground about a quarter of a mile this side of the Long Bridge, in an oak wood on the north side of the Milwood road.

"June 11, 1891. Set of eggs of *A. carolinensis*, found near the brick church on the Millwood Road; half incubated. Sent to Captain Chas. E. Bendire." (Original notes.)

No. 34Bis. Female. Greensboro. Sept. 3, 1879. W. C. Avery.
No. 49. Male-ad. Greensboro. Apr. 5, 1888. W. C. Avery.
No. 522. Female. Greensboro. May 28, 1890. W. C. Avery.
No. 900. Male-hornet. Greensboro. Aug. 23, 1891. W. C. Avery.

98. ANTROSTOMUS VOCIFERUS VOCIFERUS (Wilson).
WHIP-POOR-WILL.

"Rare. Spring and autumn migrant." (1890e).

Oct. 14, 1890, the Doctor records seeing a whip-poor-will "on a wooded hillside about 1/2 mile north of Pine Knoll," near Greensboro.

99. CHORDEILES VIRGINIANUS VIRGINIANUS (Gmelin).
NIGHTHAWK.
"Bullbat."

"On Sept. 22, 1887, Dr. Avery "saw large flights of nighthawks late in the evening, flying south; appeared to be a migratory wave." Large numbers were recorded again next day.

"Common. Summer resident. Breeds. Abundant during autumn migration." (1890e).

It is not probable that subspecies *virginianus* breeds in Hale County. Though the specimen listed below was taken in May it could easily have been a migrating bird.

No. 510. Male. Greensboro. May 8, 1890. W. C. Avery.

100. CHORDEILES VIRGINIANUS CHAPMANI (Coues).
FLORIDA NIGHTHAWK.
"Bullbat."

About half of Dr. Avery's only published note on the nighthawk, given under the preceding subspecies, is really applicable to *chapmani* for this is the breeding bird in Hale County. The following breeding record is taken from the Doctor's original notes:

"June 10, 1891. Set of eggs of *Chordeiles virginianus*; incubation advanced; found by a negro on the bare ground in a cottonfield."

No. 533. Female. Greensboro. June 26, 1890. W. C. Avery.

No. 552. Male-hornot. Greensboro. July 26, 1890. W. C. Avery.

101. CHÆTURA PELAGICA (Linnæus).
CHIMNEY SWIFT.

"Abundant. Summer resident. Breeds." (1890e).

No. 196. Female. Greensboro (Millwood). Sept. 7, 1889. W. C. Avery.

102. ARCHILOCHUS COLUBRIS (Linnæus).
RUBY-THROATED HUMMINGBIRD.

That Dr. Avery's enthusiasm was boundless cannot be denied when it is known that his twenty-fifth specimen was a bird of this tiny species. It was taken on that remarkable 17th of June, 1876, when the Doctor put up skins of a number that would have done credit to a more seasoned collector. He writes that he had intended to mount this specimen but had not the necessary wire, so merely made a skin of it.

"Abundant. Summer resident. Breeds." (1890e).

The stomach of a hummer taken Sept. 21, 1893, at Greensboro, "was full of insects."

Hummingbirds were recorded as abundant in Baldwin County, Sept. 16-Oct. 2, 1892.

No. 560. Female. Greensboro. Aug. 11, 1890. W. C. Avery.
 No. Female. No data.
 No. Male. No data.

103. TYRANNUS TYRANNUS (Linnæus).

KINGBIRD.

"Bee Martin." "Bee-Bird."

The first mention found of this species is under date of June 9, 1876, when Dr. Avery entered in his journal, as No. 15, an adult male taken at Greensboro. He writes:

"Stomach contained insects alone. A most useful bird although he destroys a few bees. Who knows how many thousands of cotton flies this active little bird may destroy? His wings being formed for rapid and powerful flight, he seems to be the terror of carnivorous birds, at least of the heavier and more awkward genera, known by ornithologists as buzzards. The hawk proper or blue-darter as it is stupidly called, would be more than a match for this tyrant."

The following is an entry made sometime in June, 1876 (though not dated), in the Doctor's "Oological Register," as he called it:

"No. 5-15 Nest of *Tyrannus carolinensis* (Bee-bird). This nest was far out on one of the later branches of a sweet gum (liquidambar tree). In attempting to pull in the limb and secure the nest, the limb parted company with the stem to which it was attached and threw all the eggs to the ground, very much to my disappointment as it was the first nest of a bee-bird that I had ever seen. The eggs are white, dotted with reddish specks about the size of a pin point."

"Common. Summer resident. Breeds. This bird is not nearly so destructive to bees as the summer tanager (*Piranga rubra*). (1890e).

No. 473. Male. Greensboro. April 21, 1890. W. C. Avery.
 No. 474. Male. Greensboro. April 21, 1890. W. C. Avery.
 No. 488. Male. Greensboro. April 29, 1890. W. C. Avery.
 No. 489. Female. Greensboro. April 29, 1890. W. C. Avery.
 No. 837. Male. Greensboro. May 8, 1891. W. C. Avery.

104. MYIARCHUS CRINITUS (Linnaeus).
CRESTED FLYCATCHER.

"Common. Summer resident. Breeds." (1890e).

"May 31, 1891. Asbury McShan took a nest of *M. crinitus* (Crested flycatcher); set of five, slightly incubated; nest in a hollow mulberry about ten feet from the ground." (Original notes).

No. 458. Male. Greensboro. Apr. 14, 1890. W. C. Avery.
No. 670. Male. Greensboro. Sept. 12, 1890. W. C. Avery.

105. SAYORNIS PHOEBE (Latham).
PHOEBE.

"Common. Winter resident." (1890e).

No. 260. Male. Greensboro. Nov. 5, 1889. W. C. Avery.
No. 309. Male. Greensboro. Dec. 11, 1889. W. C. Avery.
No. 340. Female. Greensboro. Jan. 4, 1890. W. C. Avery.
No. 738. Female. Greensboro. Oct. 7, 1890. W. C. Avery.
No. 808. Male. Greensboro. Dec. 13, 1890. W. C. Avery.
No. 1089. Male. Greensboro. Oct. 15, 1893. W. C. Avery.

106. MYIOCHANES VIRENS (Linnaeus).
WOOD PEWEE.

"Abundant. Summer resident. Breeds." (1890e).

Recorded as late as Oct. 24 (1890) at Greensboro.

The stomach contents of an adult male taken June 22, 1888, at Greensboro, were recorded as Hymenoptera and Coleoptera.

No. 516. Male. Greensboro. May 12, 1890. W. C. Avery.
No. 543. Male. Greensboro. July 16, 1890. W. C. Avery.
No. 674. Male. Greensboro. Sept. 16, 1890. W. C. Avery.
No. 753. Male. Greensboro. Oct. 15, 1890. W. C. Avery.

107. EMPIDONAX FLAVIVENTRIS (W. M. & S. F. Baird).
YELLOW-BELLIED FLYCATCHER.

"Rare. There are two specimens in my collection; one taken by C. S. Brimley at Millwood, on September 20 of this year, the other by myself on the 23rd of that month. These are the only examples of this bird that I have met with." (1819a).

No. 691. Male. Greensboro (Millwood). Sept. 20, 1890. W. C. Avery.
No. 1066. Male. Greensboro. Sept. 20, 1893. W. C. Avery.

108. EMPIDONAX VIRESCENS (Vieillot).
ACADIAN FLYCATCHER.

"Common. Summer resident. Breeds." (1891a).

After recording an adult female taken at Greensboro, May 25, 1889, the Doctor noted: "This bird was incubating. Nest of gray moss in a shag-bark tree, 12 ft. from ground; nest suspended by the rim; shallow."

- No. 548. Male. Greensboro. July 22, 1890. W. C. Avery.
- No. 549. Female. Greensboro. July 22, 1890. W. C. Avery.
- No. 573. Male. Greensboro. Aug. 14, 1890. W. C. Avery.
- No. 597. Male. Greensboro. Aug. 22, 1890. W. C. Avery.
- No. 666. Female. Greensboro. Sept. 11, 1890. W. C. Avery.
- No. 696. Male. Greensboro. Sept. 23, 1890. W. C. Avery.
- No. 705. Female. Greensboro. Sept. 25, 1890. W. C. Avery.
- No. 920. Female. Greensboro. Sept. 10, 1891. W. C. Avery.

109. OCTOCORIS ALPESTRIS ALPESTRIS (Linnæus).
HORNED LARK.

"Only two notes can be found in Dr. Avery's catalogues concerning this species. These follow:

"No. 1012 (listed below was captured from a small flock of six horned larks, form known as prairie; they were feeding in the snow not forty steps from the Greensboro depot. The very cold weather of the season must account for the presence of the horned lark so far south."

"A flock of about a dozen prairie horned larks was seen on the 20th and six of them were captured within fifty yards of the Greensboro station." (This note followed the entry of No. 1012, listed below.)

It will be seen that the Doctor considered all these specimens representatives of the form *praticola*, but Mr. Oberholser of the U. S. Biological Survey refers them to *alpestris*.

- No. 1012. Male. Greensboro. Jan. 19, 1893. W. C. Avery.
- No. 1013. Female. Greensboro. Jan. 20, 1893. W. C. Avery.
- No. 1014. Male. Greensboro. Jan. 20, 1893. W. C. Avery.
- No. 1015. Male. Greensboro. Jan. 20, 1893. W. C. Avery.
- No. 1016. Female. Greensboro. Jan. 20, 1893. W. C. Avery.
- No. 1017. Male. Greensboro. Jan. 20, 1893. W. C. Avery.

110. OCTOCORIS ALPESTRIS PRATICOLA (Henshaw).
PRAIRIE HORNED LARK.

The following specimen, collected from the same flock as the last five listed under the preceding subspecies, has been referred to *praticola* by Mr. Oberholser.

No. 1018. Male. Greensboro. Jan. 20, 1893. W. C. Avery.

111. CYANOCITTA CRISTATA FLORINCOLA (Coues).
FLORIDA BLUE JAY.
"Jaybird."

"Abundant. Resident. Breeds." (1891a).

No. 235. Sex (?). Greensboro. Oct. 8, 1889. W. C. Avery.
No. Male-hornot. Greensboro. July 23, 1891. W. C. Avery.
No. 1040. Female. Greensboro. Apr. 8, 1893. W. C. Avery.
No. Odd specimen—no data.

112. CORVUS BRACHYRHYNCHOS PAULUS (Howell).
SOUTHERN CROW*.

"Abundant. Resident. Breeds." (1891a).

From the following note it would appear that the Doctor occasionally turned his medical skill along avian lines:

"On February 28th (1891) a crow was shot and wounded. The broken wing has been amputated and I hope that he will prove a more amiable captive than the ferocious crow-blackbirds. At this time he seems to have recovered from the wound."

Crows were recorded as abundant in Baldwin County, Sept. 16-Oct. 2, 1892.

No. 224. Male-juv. Greensboro. Sept. 28, 1889. W. C. Avery.
No. 225. Male-ad. Greensboro. Sept. 28, 1889. W. C. Avery.
No. 295. Female-ad. Greensboro. Dec. 7, 1889. W. C. Avery.

113. DOLICHONYX ORYZIVORUS (Linnæus).
BOBOLINK.

"Not common. Spring migrant." (1891a).

The specimens listed below were taken in Carl Tutwiler's oat field; stomachs contained oats and debris of beetles.

No. 137. Female. Greensboro. May 15, 1889. W. C. Avery.
No. 138. Male-ad. Greensboro. May 15, 1889. W. C. Avery.

*Proc. Biol. Soc. Wash., Vol. XXVI, pp. 199-202, Oct. 23, 1913.

114. *MOLOTHRUS ATER ATER* (Boddaert).
COWBIRD.

In a letter to the Editor of the "American Field," in 1884, Dr. Avery wrote:

"This is the first of the *Icteridae* to appear here, coming early in the Fall." (1884).

In 1891 the following appeared:

"Abundant. Resident from the middle of July till April. This bird not having the care of rearing its young as others, does not seem to tarry long in its northern home." (1891a).

No. 922. Male-hornot. Greensboro. Sept. 14, 1891. W. C. Avery.

No. 949. Male. Greensboro. Nov. 1, 1891. W. C. Avery.

115. *AGELAIUS PHŒNICEUS PHŒNICEUS* (Linnaeus).
FLORIDA RED-WING.

The specimen listed below has been referred to the typical subspecies by Mr. Oberholser.

No. 339. Male. Greensboro. Jan. 3, 1890. W. C. Avery.

116. *AGELAIUS PHŒNICEUS PREDATORIUS* (Wilson).
RED-WINGED BLACKBIRD.*

"May 28, 1889. Saw several pairs of red-wings, *A. phoeniceus* (Linn.). Found two nests in the marsh north of the Millwood road, on the Bolling Branch. One nest was empty, the other contained a single bird. I could not determine whether the empty nest had been just completed or whether the eggs had been hatched and the young birds had left the nest. One of these nests was three feet from the ground, the other over six. They were bulky structures for so small a bird; both built in button-bushes (*Cephalanthus occidentalis*).

"Visited these nests again on the 31st, and found three nests more in the same marsh. These last were on reeds and in coarse grass, a foot or two from the ground; one of them contained two eggs and a young bird just hatched, the others contained nothing. One of the nests found on the 28th, then empty, contained two eggs on the 31st." (Original notes).

*Mearns, Proc. Biol. Soc. Wash., Vol. XXIV, pp. 226-227, 1911.

"Winter resident. A few remain all the year and nest here. Abundant." (1891a).

- No. 69. Male. Greensboro. June 2, 1888. W. C. Avery.
 No. 70. Female. Greensboro. June 2, 1888. W. C. Avery.
 No. 326. Male. Greensboro. Dec. 23, 1889. W. C. Avery.
 No. Male. Greensboro. Jan. 21, 1893. W. C. Avery.

117. STURNELLA MAGNA MAGNA (Linnæus).
 MEADOWLARK.
 "Oldfield Lark."

It is not certain that the first recorded meadowlark, taken Jan. 26, 1878, was of this subspecies, but as three of the four meadowlarks now in the collection are referable to *magna*, and *argutula* was not described until twenty-one years later, it seems reasonable to place the record here. Dr. Avery records the fact that the stomach of this specimen "contained portions of beetles," and writes that the species is "very common in this state."

It is certain that the northern form is abundant in Alabama during the fall and winter months.

- No. 377. Female. Greensboro. Feb. 21, 1890. W. C. Avery.
 No. 764. Male. Greensboro. Oct. 18, 1890. W. C. Avery.
 No. 1098. Male. Greensboro. Oct. 25, 1893. W. C. Avery.

118. STURNELLA MAGNA ARGUTULA (Bangs).
 SOUTHERN MEADOWLARK.

"Abundant. Resident. Breeds." (1891a).

Dr. Avery recorded the meadowlark as "common in the pine woods on Perdido Bay" Sept. 16-Oct. 2, 1892. Possibly both forms were included in his observations.

- No. 1032. Female. Greensboro. Mar. 28, 1893. W. C. Avery.

119. ICTERUS SPURIUS (Linnæus).
 ORCHARD ORIOLE.

"Abundant. Summer resident. Breeds." (1891a).

- No. 20. Male-juv. Greensboro. May 18, 1887. W. C. Avery.
 No. 457. Male-juv. Greensboro. Apr. 14, 1890. W. C. Avery.
 No. 466. Male-juv. Greensboro. Apr. 19, 1890. W. C. Avery.
 No. 475. Male-juv. Greensboro. Apr. 21, 1890. W. C. Avery.
 No. 480. Male. Greensboro. Apr. 26, 1890. W. C. Avery.
 No. 482. Male. Greensboro. Apr. 26, 1890. W. C. Avery.
 No. 834. Female. Greensboro. May 6, 1891.

120. *ICTERUS GALBULA* (Linnæus).
BALTIMORE ORIOLE.

"Rare. Have observed it only as an autumn migrant."
(1891a).

No. 639. Male. Greensboro. Sept. 4, 1890. W. C. Avery.
No. 697. Female. Greensboro. Sept. 23, 1890. W. C. Avery.
No. Odd specimen—no data.

121. *EUPHAGUS CAROLINUS* (Muller).
RUSTY BLACKBIRD.

"Winter resident. Rare." (1891a).

No. 984. Male. Greensboro. Feb. 28, 1892. W. C. Avery.
No. 985. Female. Greensboro. Feb. 28, 1892. W. C. Avery.
No. 986. Male. Greensboro. Feb. 28, 1892. W. C. Avery.

122. *QUISCALUS QUISCULA QUISCULA* (Linnæus).
PURPLE GRACKLE.
"Crow Blackbird."

Though Dr. Avery's manuscript notes on the purple grackle are rather voluminous and of considerable interest, his published notes consist of only two or three terse sentences. The first of these appeared in 1884, in a letter to the Editor of the "American Field:" "Obtained specimens of *Scolecophagus cyanocephales* (purple-headed grackle) (March 21st). A few individuals of this species remain here all summer, build nests and rear young." (1884).

The other notes appeared in his "Birds Observed in Alabama—No. 3," published in 1891. These follow just as they were printed:

"*Quiscalus quiscula*; purple grackle.—Rare, the usual form being intermediate between *quiscula* and *aglaeus*.

"*Quiscalus quiscula aglaeus*; Florida grackle.—Intermediate between *quiscula* and *aglaeus*, but belonging rather to the latter form. Resident. Breeds." (1891a).

The last paragraph is incorrect. All the spring and summer specimens in the collection from the vicinity of Greensboro are referable to subspecies *quiscula*. The only representatives of *aglaeus* found were three specimens from Florida; one collected on Indian River, in 1886, by C. J. Maynard, and two taken at Micco, in 1889, by F. M. Chapman.

The oldest extant specimen of *quiscula* is No. 34, taken Sept. 22, 1887. Its "stomach contained chicken corn, maize and parts of insects." In connection with the food of the bird this note, following the entry of the specimen in the catalog, is of especial interest: "The purple grackle nests here; it is not so common as it was when the country was first settled; forty-five years ago it was one of the greatest pests which the planter had to encounter; it pulled up acres of corn as soon as the leaves appeared above the ground. Children were employed to scare the crow blackbirds from the corn fields, and numbers were shot without apparent diminution of the individuals composing their ranks. The nest of this bird is a coarse structure of sticks daubed with mud. I saw a small colony of purple grackles, in 1876, building their nests in the trees near the Mallory Old Place, Beat 7."

The stomach of another bird, taken May 7, 1889, and presented to the U. S. National Museum, contained crawfish. Still another specimen, shot the same day, had eaten insects. A bird collected June 5, 1889, after dining upon coleopterous insects, had taken dewberries for dessert. The stomach of another, collected next day, contained dewberry seeds and grasshoppers; but the climax is reached in No. 732 (listed below); whose stomach contained acorns. Thus it will be seen that the purple grackle has a very varied dietary.

The following note, appended to the entry of No. 162 in the Doctor's catalogue, under date of June 6, 1889, evidences the fact that he was in no wise free from the usual collector's difficulties: "Measured this young *quiscula* and left it on my table to skin, but the rats carried it off!"

The following notes are taken verbatim and in chronological order from the Doctor's journals:

"April 14, 1890. Found nest of Florida grackle (*Quiscalus quiscula aglaeus*); nest of *Dryobates pubescens* excavated in a willow limb about ten feet from ground; nest of blue gray gnatcatcher (*Polioptila caerulea*) on the horizontal limb of a willow.

"April 18th. Visited these nests; those of the grackles (*Q. q. aglaeus*) were in willow trees; were bulky and built of coarse grass leaves; they were situated close to the body of the tree, and supported by the limbs or sprouts growing from the axis.

"My climber on ascending to these nests found an egg in each of them (*Q. q. Aglaeus*), the other nests were empty.

"25th. Visited the nests of the grackles found on the 14th and 18th. They each contained five eggs. These I collected with the nests and sent to the National Museum.

Measurements of Nests.

No. 23. External width, 6 inches; external depth, 4 inches; internal width, 4.50 inches; internal depth, 3.50 inches.

"May 5th. Found four nests of grackles in pines near Julia Woodruff's, one at the gate about twenty steps from house.

"May 18th. Saw grackles carrying crawfish to their young; their nests were a mile from the grounds where they caught the crawfish.

"June 1st. Found nest of purple grackle in my lot.

"June 1st, 1890. Saw a purple grackle catch a crawfish. This he picked out of shallow water as quickly as a flycatcher would capture an insect on the wing. The crawfish was quite large—his captor flew off about 10 steps from the branch and lighting with his prey began his matin meal by pecking and tearing the crustacean into suitable pieces for swallowing. I approached too near in my eagerness to see the performance, when the grackle flew about a hundred yards, and lighting, continued his eating on the remnant of the crawfish carried with him. I had a good view of *Quiscalus* with my field glass. A red-wing hopped up within a foot of the spot where the feast was being held, and looked wistfully, but respectfully, on till *Q. q. aglaeus* finished and flew off, when *Agelaius phoeniceus* began to consume the fragments. As soon as he had done I walked to the spot and found a

thorax bare of legs, and the 'meat' eaten from the inside of the shell.

"Watched a pair of grackles near the branch till sometime after sunset; in fact the moon was up and shining brightly. I thought they were going to roost on the oak at 'Contentment' gate, but a signal from one being given, they suddenly launched themselves into the air and soon disappeared on their way homeward.

"Just at night the old grackle, with nest in my pasture, brought either a crawfish or a stick to feed her young or complete her nest; I must see the nest to-morrow.

"June 10, 1890. I have two young grackles captured May 20th; they must be about a month old. They began to feed themselves yesterday by taking the bits of hard boiled egg and crawfish, blackberries and earthworms supplied them. They are interesting pets, much attached to me and always recognize my presence by flying against the bars of their prison, or screaming as loud as they can and shaking their wings and stretching their capacious jaws.

"A set of three nestlings of *Q. q. aglaeus* were taken by me, two on the 4th, and one on the 5th of June. The nest was reported to me on the 1st by a little negro, who said that he saw the parents carrying material to build. On the third the little birds were heard crying in the nest and on the 4th two were captured by me and the third nestling, which had left the nest, was taken on the 5th. On the 4th, for positive identification, the parents were both shot.

"On the morning of the 5th I heard a young bird complaining and calling in vain for its parents. It must be rescued; a boy was sought and hired to climb a large oak to catch this one, but search proved fruitless when the boy arrived.

"About an hour later the little starvling had wandered accidentally to my grove near the house, and perched upon the top of a pine, filled the air with its piteous cries for food. Soon it flew from the tree upon the chimney of my house, then upon the roof, where it pursued the pigeons with quivering wings and loud cries for food.

They retreating from this strange apparition, it pursued them to the roof of the pigeon house. It must be caught and fed, poor little famished bird. A long fishing pole dislodged it from the pigeon house. It flew into a pine nearby; scared from this it lighted in another; still pursued by hunger and not knowing where to go, it took a long flight which brought it near to the ground, but still in a pine; another and another time compelled to fly, it left the pine grove and flew to the hillside where its parents had fallen to my gun; again frightened from its perch, a long flight brought it to an oak where it settled on a limb near the ground; once more disturbed, and its wings now weak with constant use, it made about seventy-five yards of trajectory and grappling at the lowest limbs of a willow fell to the ground. The cries of hunger were soon appeased by a bountiful supply and the little captive seems happy with his brothers. Its efforts to escape after it had fallen hungry and tired to the ground were in vain; its feeble wings refused to bear it aloft.

"Why were its parents killed? A problem in ornithology was to be solved. A *pair* of grackles must be collected, and only a mated pair! to prove whether the bronze and Florida grackles interbreed, or whether they belong to different species. Three mated pairs have already been collected, and there has yet been found no crossing of the two species; hence the conclusion is that they do not mate except with their own kind. This was a cruel task and one which will be pursued no more by me. It was done at the suggestion of Professor Robert Ridgway of Washington City."

The next paragraph, dated June 11, 1890, gives the catalog numbers of the six mated birds sent to Mr. Ridgway and the exact localities where the specimens were collected. There is also a short discussion of relationships, but this is substantially the same as the published notes of 1891, already quoted.

"1891. March 22, The crow blackbirds taken on May 20th, 1890, and June 4th and 5th of the same year, lived harmoniously together till they were full grown when

the oldest male killed the other four and fed upon their brains. The door of the cage was found open one morning and the savage bird had escaped to be devoured by the cat; he was never seen after that day: Sic semper tyrannis."

- No. 34. Female-juv. Greensboro. Sept. 22, 1887. W. C. Avery.
- No. 732. Male. Greensboro. Oct. 4, 1890. W. C. Avery.
- No. 441 (?) Male. Greensboro. April 3, 1891. W. C. Avery.
- No. 842. Male. Greensboro. May 9, 1891. W. C. Avery.
- No. 844. Male. Greensboro. May 12, 1891. W. C. Avery.
- No. 845. Female. Greensboro. May 13, 1891. W. C. Avery.
- No. 855. Male. Greensboro. May 26, 1891. W. C. Avery.
- No. 856. Male. Greensboro. May 28, 1891. W. C. Avery.
- No. 863. Female. Greensboro. June 1, 1891. W. C. Avery.
- No. 865. Female-hornot. Greensboro. June 2, 1891. W. C. Avery.
- No. 868. Female-hornot. Greensboro. June 24, 1891. W. C. Avery.
- No. 873. Male-hornot. Anniston. July 3, 1891. W. C. Avery.
- No. 874. Female-adult. Anniston. July 3, 1891. W. C. Avery.
- No. 876. Male-adult. Anniston. July 3, 1891. W. C. Avery.
- No. 877. Male-hornot. Anniston. July 3, 1891. W. C. Avery.
- No. 1053. Female. Greensboro. Apr. 29, 1893. W. C. Avery.

123. *QUISCALUS QUISCULA ÆNEUS* (Ridgway).
BRONZED GRACKLE.

"Professor Ridgway considers this a good species, and he is doubtless right in his belief. Winter resident. Does not breed here." (1891a).

The stomach of specimen No. 173, collected at Greensboro, July 17, 1889, and sent to Mr. Ridgway, contained beetles and grains of oats.

- No. 353. Male. Greensboro. Jan. 24, 1890. W. C. Avery.
- No. 354. Male. Greensboro. Jan. 24, 1890. W. C. Avery.
- No. 359. Female. Greensboro. Jan. 31, 1890. W. C. Avery.
- No. 360. Female. Greensboro. Jan. 31, 1890. W. C. Avery.
- No. 365. Female. Greensboro. Feb. 3, 1890. W. C. Avery.
- No. 1010. Male. Greensboro. Dec. 12, 1892. W. C. Avery.

124. *MEGAQUISCALUS MAJOR MAJOR* (Vieillot).
BOAT-TAILED GRACKLE.

Writing of his trip to Baldwin County, Sept. 16-Oct. 2, 1892, Dr. Avery records seeing several boat-tails on Dauphin Island, though none were taken.

125. CARPODACUS PURPUREUS PURPUREUS (Gmelin).
PURPLE FINCH.

The stomach of the first recorded bird of this species, a specimen taken at Greensboro, Jan. 14, 1878, "contained debris of berries." The Doctor writes that it is a rare bird.

Four days later, recording another specimen, he write: "Winter visitant; seems to feed on seeds of various trees and weeds. I have seen this bird eating the seeds of the Jamestown weed. This bird is rare in Alabama. He is said to sing well."

"Common some years; others rare. Winter resident." (1891a).

This little note is found under date of March 15, 1890, in the Doctor's catalog: "The purple finch has been common this winter.

- No. 314. Female. Greensboro. Dec. 13, 1889. W. C. Avery.
- No. 391. Male. Greensboro. Mar. 2, 1890. W. C. Avery.
- No. 392. Female. Greensboro. Mar. 2, 1890. W. C. Avery.
- No. 411. Male. Greensboro. Mar. 13, 1890. W. C. Avery.
- No. 421. Male. Greensboro. Mar. 15, 1890. W. C. Avery.

126. PASSER DOMESTICUS (Linnæus).
ENGLISH SPARROW.

The Doctor did not deign to waste ink upon this feathered "varmint" though there are two specimens in the collection. The crop of the first contained corn, that of the other "grain."

- No. 254. Male. Greensboro. Nov. 2, 1889. W. C. Avery.
- No. 255. Female. Greensboro. Nov. 2, 1889. W. C. Avery.

127. ASTRAGALINUS TRISTIS TRISTIS (Linnæus).
GOLDFINCH.

The first goldfinch recorded by Dr. Avery is his No. 17 (old series), an adult female taken at Greensboro, June 10, 1876. He entered in his journal under that date: "This little bird is not very common in this portion of Alabama. In early spring it appears in little flocks, which soon disband, and the note of a solitary bird may be occasionally heard, as he flies over. Even after the season for pairing, they may be seen together in squads of five or six. Do they build their nests and

rear their young in this State. Has the male any song peculiar to the season of love? These are questions that I cannot answer. 'Je ne suis qu'un ane en ornitologie'."

However, he did answer the first question, and also corrected his first statement.

"Common. Resident. Breeds." (1891a).

No. 292.	Female.	Greensboro.	Dec. 3, 1889.	W. C. Avery.
No. 349.	Female.	Greensboro.	Jan. 15, 1890.	W. C. Avery.
No. 414.	Female.	Greensboro.	Mar. 13, 1890.	W. C. Avery.
No. 416.	Male.	Greensboro.	Mar. 13, 1890.	W. C. Avery.
No. 417.	Male.	Greensboro.	Mar. 13, 1890.	W. C. Avery.
No. 635.	Male.	Greensboro.	Sept. 3, 1890.	W. C. Avery.

128. SPINUS PINUS (Wilson).
PINE SISKIN.

"Met with during spring migrations. Abundant in some years, and rare in others." (1891a).

No. 380.	Female.	Greensboro.	Feb. 24, 1890.	W. C. Avery.
No. 459.	Female.	Greensboro.	Apr. 14, 1890.	W. C. Avery.

129. POECETES GRAMINEUS GRAMINEUS (Gmelin).
VESPER SPARROW.

Jan. 26, 1878, the first recorded specimen of this species was taken at Greensboro. Concerning it is written: "Stomach contained small seeds. This bird is a winter visitant."

"Abundant. Winter resident." (1891a).

No. 258.	Male.	Greensboro.	Nov. 5, 1889.	W. C. Avery.
No. 1097.	Female.	Greensboro.	Oct. 25, 1893.	W. C. Avery.

130. PASSERCULUS SANDWICHENSIS SAVANNA (Wilson).
SAVANNA SPARROW.

"Abundant. Winter resident." (1891a).

No. 129.	Male.	Greensboro.	May 8, 1889.	W. C. Avery.
No. 405.	Male.	Greensboro.	Mar. 10, 1890.	W. C. Avery.
No. 407.	Male.	Greensboro.	Mar. 11, 1890.	W. C. Avery.
No. 798.	Male.	Greensboro.	Oct. 25, 1890.	W. C. Avery.
No.	Sex (?)	Greensboro.	Nov. 25, 1893.	W. C. Avery.

131. AMMODRAMUS SAVANNARUM AUSTRALIS (Maynard).
GRASSHOPPER SPARROW.
"Yellow-Winged Sparrow."

Dr. Avery's early difficulties in forming an acquaintance with this species but typifies the experience of most

embryonic ornithologists with members of the sparrow family. His journal records of his first specimens are quite interesting and are given here practically in toto. The first, an adult male (No. 16, old series) was taken June 9, 1876, at Greensboro, and presented to the Smithsonian Institution. After recording the measurements, color of feet and bill, and the fact that the stomach contained insects, the Doctor writes: "This is a most interesting specimen to me. I think I recognize in his summer dress an old acquaintance; voice, manners, dress all completely changed. It must be the sparrow that sings so sweetly in the hedges and in the foliage of evergreens in winter. It is possible that this bird spends his summers here and I had never found it out. Go to Washington little fellow. Professor Baird can tell all about you."

A few days later, June 17th, he records an adult female (No. 21, old series) and writes: "This sparrow the same with No. 16, presented to the Smithsonian Institution, resembles most nearly *Passerculus savanna*, the savanna sparrow (Genus 65 of Coues' 'Key to North American Birds'). My specimens differ, however, though not essentially, from the sparrow described in the 'key' as the savanna sparrow. The markings about the breast of mine are not the same.

"How little we use our eyes is proven to me by the discovery of this sparrow, which I have always taken for the chipping sparrow and should always have done so, if I had not heard his curious insect-like, hardly distinguishable from a cricket's, song. If this is the savanna sparrow he is completely metamorphosed, and close inspection could alone discover the resemblance to that bird. The savanna sparrow has in winter a whistle something like the words 'see! see! see!' much prolonged. Everyone is acquainted with him, who takes notice of anything. Even the flight of my bird is not like that of the savanna sparrow. He flies like a wounded bird especially just before he lights, not with the usual irregular flight of the sparrow, up and down, this side and that side. This however is nothing unusual in the breeding

season, as many birds have a very characteristic flight at that time. My sparrow flies as a *partridge* by constant vertical elevation and depression of the wings. This movement, though is slow and peculiar and may be assumed as that of the turtle-dove or that of *Icteria virens* (yellow-breasted chat) at the period when they are making love. The chat is not only 'chatty' at the season of nesting, but his flight is most amusing. It would make many persons laugh to see him perform his aerial evolutions."

There is a marginal note, written a little later, giving the correct identification of the above specimen. The very next entry is another grasshopper sparrow, taken the same day, indicating that the Doctor was at this time a better collector than an ornithologist. He states that "This as well as that above had debris of insects in stomach."

In August, 1889, Dr. Avery published the following "Observations on the Grasshopper Sparrow in Hale County, Alabama":

"Hale County lies between Tuscaloosa County on the north and Marengo County on the south; its western boundary is the Warrior River, its eastern, Perry County. The grasshopper sparrow, *Ammodramas savannarum passerinus*, is found only in the *Canebrake* or *Black Belt* of Hale County. On its northern migratory path it probably finds there suitable breeding grounds; and that may account for its presence in summer in that part of the county, while it is never seen at all, to my knowledge, in the less fertile, piney and sandy portion of the north of the county.

"It winters farther south, and makes its appearance in this locality about the first of May, when it begins to breed. A nest of this species found by me on the 11th of this month (May) contained five eggs slightly incubated; it was in a depression in the ground, lined with grass, and was arched or domed on the top. The eggs were white and spotted with reddish-brown, mostly on the larger end, and not differing from the description given of the eggs of the grasshopper sparrow breeding farther north.

"The specimens of this sparrow collected by me in this county in the spring and summer have never been streaked, and measurements correspond with the measurements of this species given by Ridgway in his 'Manual.'

"As Mr. Maynard states, a southern grasshopper sparrow may exist, but, if so, it must be farther south than this latitude, which is about the 33d degree north." (1889a).

Two years later this note was included in his "Birds Observed in Alabama": "Common in the black lands. Summer resident. Breeds." (1891a).

It should be stated here that this species is a permanent resident in Alabama.

- No. 127. Female. Greensboro. May 8, 1889. W. C. Avery.
- No. 128. Male. Greensboro. May 8, 1889. W. C. Avery.
- No. 530. Male. Greensboro. June 3, 1890. W. C. Avery.
- No. 682. Female. Greensboro. Sept. 17, 1890. W. C. Avery.
- No. 957. Male. Greensboro. Nov. 30, 1891. W. C. Avery.

132. PASSERHERBULUS HENSLOWI HENSLOWI (Audubon).
HENSLOW'S SPARROW.

"Rare. On January 12 of this year I took my first and only specimen of this species." (1891a).

The original note in the Doctor's catalog, under date of Jan. 12, 1890, reads: "This specimen was shot to pieces and scarcely enough was left for its identification. It was shot near Myer's Bluff on the Warrior River, while I was shooting partridges."

133. CHONDESTES GRAMMACUS GRAMMACUS (Say).
LARK SPARROW.

"The habitat of this bird, as given in the A. O. U. Check List, is: 'Mississippi valley region, from Ohio, Illinois and Michigan to the Plains, south to Eastern Texas.'"

"Every summer for the last four or five years, I have seen sparrows with the tail feathers tipped with white. They occur in the black lands southwest of Greensboro, Ala., in bunches or flocks of five or six individuals, as if they might be the family of the parent birds and their young. They are rare, however, as I have met with

them perhaps only once or twice during the summer, and always in July. It has been my misfortune never to secure a specimen of these sparrows, so as to remove all doubt as to their identity. In the summer of 1887, in July, while returning home from a barbecue and shooting match, given by Mr. R. Jeffries, not far from that gentleman's home, two large sparrows, with the tails tipped with white, rose from the grass in front of my horse, and perched on the fence by the road. I had a gun, but no cartridges—at least none that I thought suitable. I returned to Mr. Jeffries' for shells; he had none. I then took two heavily loaded shells, which had already missed fire, and inserted them in my gun, a Lefever semi-hammerless; the gun had weak mainsprings, and I had turned out the screws on the under side of the frame to strengthen the mainsprings. This caused the plungers to project so much from the standing breech that I had to cock the gun to close it. In letting down the hammers, or rather in uncocking the gun, I pressed the triggers before placing my thumb on the lever; the gun was discharged, and eight drams of powder and two and a half ounces of shot drove the butt of the gun with such force against my thigh that I was paralyzed with pain and was *hors de combat* for that day, and for some time after. I was thus disappointed in obtaining the coveted specimen of this to me unknown and rare bird.

"In July of 1886, while on my way to Faunsdale, I saw two miles south of Greensboro, about a half dozen of these sparrows, in an osage orange hedge. I had my gun, and fired at one of the birds, but failed to bag it, as it fell into the dense hedge, it being impossible to reach the spot where it fell, or search for it, on account of the thorns. The other birds disappeared and could not be found.

"In 1885, in July, I saw a bunch of a half dozen of these same sparrows, on the Demopolis road, six miles southwest of Greensboro.

"On July 28, this year, while I was riding, a mile and a half south of Greensboro, a large sparrow, with the white-edged tail, rose from the grass, and lighted on a

weed. My attention was at once attracted by the tail marking, as well as by the peculiar way that it erected the crown-feathers into a crest, as the meadow lark often does. I had no gun this time, but I examined the bird with my field glass, and could see the white superciliary lines and the streaked crown. From the markings of the head and tail, and the size of the sparrow, I identified it as *Chondestes grammacus* (Say), the lark sparrow." (1889b).

"Not common. It has been observed in July and August. It may breed here, though this belief is without other foundation than finding the bird here in July with its young. Found chiefly in the black lands (cane-brake), in the southern part of the county." (1891a).

No. 583. Female. Greensboro. Aug. 16, 1890. W. C. Avery.
No. 665. Female. Greensboro. Sept. 11, 1890. W. C. Avery.

134. ZONOTRICHIA ALBICOLLIS (Gmelin).
WHITE-THROATED SPARROW.

The first white-throats are recorded under date of Jan. 20, 1878, when two were taken at Greensboro. The stomach of one "contained seeds" and the other "gravel and Indian corn meal." Concerning them the Doctor wrote: "Winter visitant. One of our commonest sparrows in winter."

In 1891 the following note was published: "Abundant. Winter resident." (1891a).

No. 256. Female. Greensboro. Nov. 4, 1889. W. C. Avery.
No. 319. Male. Greensboro. Dec. 19, 1889. W. C. Avery.
No. 373. Female. Greensboro. Feb. 19, 1890. W. C. Avery.
No. 394. Female. Greensboro. Mar. 2, 1890. W. C. Avery.
No. 813. Female. Greensboro. Mar. 17, 1891. W. C. Avery.
No. 819. Female. Greensboro. Apr. 11, 1891. W. C. Avery.
No. 1102. Female. Greensboro. Oct. 27, 1893. W. C. Avery.

135. SPIZELLA PASSERINA PASSERINA (Bechstein).
CHIPPING SPARROW.

April 6, 1887, Dr. Avery recorded his first chippie with the following note which furnishes an additional example of his early difficulties with the sparrows: "Specimen shot with three others feeding on the ground in a large flock. One of the remaining three was *Spizella pusilla*.

(field sparrow). This specimen of the chipping sparrow is the first that I have ever examined closely enough to distinguish it from the field sparrow. I have never found the 'chippey' here in summer. It feeds in large flocks, on lawns in the spring especially."

Naturally one wonders, if this was the first time that the Doctor had distinguished the chipping from the field sparrow, how he could know that it did not occur in summer. That he was not slow to correct his errors is evidenced by this published note: "Common. Resident. Breeds." (1891a).

July 24, 1889, is recorded the observation of an adult male feeding a grasshopper to a young male of the season.

- No. 139. Male. Greensboro. May 18, 1889. W. C. Avery.
- No. 284. Male. Greensboro. Nov. 30, 1889. W. C. Avery.
- No. 294. Male. Greensboro. Dec. 6, 1889. W. C. Avery.
- No. 324. Male. Greensboro. Dec. 20, 1889. W. C. Avery.
- No. Male-hornot. Greensboro. Aug. 9, 1890. W. C. Avery.
- No. 857. Female. Greensboro. May 29, 1891. W. C. Avery.

136. SPIZELLA PUSILLA PUSILLA. (Wilson).
FIELD SPARROW.

The first mention of this sparrow is significant in that it reflects the state of the Doctor's knowledge of ornithology at the time. June 17, 1876, he records his first specimen as *Spizella socialis* and writes: "This little bird is very common. It has a very cheerful, and loud song for a bird so small. At the North it is called 'chip-pie.' It hops about there in the yards and like the robin is very gentle." However, he secured the proper tool (Coues' "Key") and that he made good use of it is evidenced by the fact that the last two sentences were scratched and the following note inserted on the margin: "Since writing this I see my mistake in calling this bird *Socialis*, it is anything but social in its habits. It is *Pusilla*."

The nest and eggs of the field sparrow had been taken prior to the capture of the above specimen. As No. 4 of the "Oological Register," is entered a nest taken June 5, 1876, at Greensboro. Besides the bare record of species, date, and locality, there is the following paragraph: "I had supposed till I found this nest, that this little bird

built its nest always on the ground; because a good many years ago I found the nest of one of this species on the ground, in a sedge field. No. 4 was built in a little shrub by the roadside."

The following note was found under date of April 6, 1887: "My setter puppy swallowed a specimen of *Spizella pusilla*, filled with arsenic. I poured down her throat three heaping tablespoonfuls of salt; Donna vomited the contents of stomach and is now relieved." Even the dog found the sparrows a difficult group!

April 25, 1888, a set of 3 eggs was taken from a nest about 3 feet from the ground in weeds of the last years' growth. These eggs measured: .47 by .67, .48 by .69, and .50 by .70.

The Doctor's only published note is, as usual, very much to the point: "Resident. Breeds. Abundant." (1891a).

No. 425. Female. Greensboro. Mar. 15, 1890. W. C. Avery.

No. 483. Male. Greensboro. Apr. 26, 1890. W. C. Avery.

No. 1104. Sex (?). Uniontown. Nov. 9, 1893. W. C. Avery. Albino.

No. 1105. Female. Greensboro. Dec. 11, 1893. W. C. Avery, Albinistic.

137. JUNCO HYEMALIS HYEMALIS (Linnæus).
SLATE-COLORED JUNCO.

"Common. Winter resident." (1891a).

No. 275. Female. Greensboro. Nov. 23, 1889. W. C. Avery.

No. 276. Female. Greensboro. Nov. 23, 1889. W. C. Avery.

No. 283. Male. Greensboro. Nov. 30, 1889. W. C. Avery.

No. 304. Female. Greensboro. Dec. 10, 1889. W. C. Avery.

No. 323. Male. Greensboro. Dec. 20, 1889. W. C. Avery.

No. 395. Female. Greensboro. Mar. 2, 1890. W. C. Avery.

No. 1099. Male. Greensboro. Oct. 26, 1893. W. C. Avery.

138. PEUCÆA ÆSTIVALIS BACHMANI (Audubon).
BACHMAN'S SPARROW.

Dr. Avery, like others, had trouble identifying his first Bachman's sparrow. July 8, 1886, he collected an adult male which he entered in his catalog as "*S. pusilla*" with the following note: "This bird corresponds nearly with Dr. Coues' description of *S. pusilla* but the yellow at the bend of the wing disagrees with the characters given by

him. I am at a loss how to explain this anomaly." However, he did soon explain the "anomaly," because next day he discovered his mistake and inserted the proper name.

Another specimen was taken May 21, 1887, the stomach of which "contained insects."

The following extended accounts of the nesting of this species appear in the Doctor's notes for 1888:

"8th May. Found nest of *P. ae bachmani*; nest domed; on hill side grown up in old field pines; rear of nest supported by a tuft of coarse grass; the entrance looking upwards at an angle of several degrees; well put together and compact; visited nest several times before I found the parent at home. Although I attempted to catch her on the nest, by going behind and placing my hand over the opening, she fluttered rather than flew out of the nest, running on the ground, and not rising till I had followed her some distance.

"9th. Found nest of *P. ae bachmani* in a patch of old field pines and plum bushes (*Prunus chicasa*). This contained three young and one egg which did not hatch. The old birds were perched on a pine some fifteen steps from me and manifested their alarm at my presence by their nervous movements. A short search revealed this nest with the young birds. This resembled the nest found on the 8th, except that the entrance was somewhat more inclined upwards and not as much concealed by the 2 tufts of grass beside which it was placed.

"May 23rd. Found nest of *P. ae. bachmani* on the slope of a hill covered with old field pines, in an open place, under a fallen pine branch, with some coarse grass growing near it. The parent fluttered from under my feet which had disturbed the nest by striking the pine limb; my left foot touched the right border of the nest and shook the limb before the bird moved. She threw herself on the ground about a foot from me, and then, literally trembling, every feather quivering on her body, her tail spread and wings drooping, after she had gone about ten feet from me she remained in view beside a pine till I at last discovered the nest under my very feet.

All this time she uttered not a sound. When I moved towards her she ran off through the thick weeds and briars; and finally I pursuing she pitched upon a tree and began her 'seep! seep!' till to make identification sure I reluctantly shot but lost her in the dense thicket over which she was perched.

"June 3. Found nest of *P. ae. bachmani*. This nest was on a hill covered with loblolly pines (*P. taeda*) and tall grass, but the situation of the nest was open and bare except for some scattered tufts of grass and small Virginia creepers. The entrance to the nest was near the ground and very little inclined to the horizon. As in every case but one where I had found the nest of *bachmani*, the noise made by the alarm of the parent at my presence, attracted my attention, and indicated also to me in this instance where I should search.

"While looking at a 'mimosa' (*Albizia julibrissin*) and wondering by what agency it had been brought to this unusual spot among the old field pines, a rustling a few feet behind me and the hiss, as I supposed, of a snake, disturbed my meditations. I saw the sparrow and soon the nest, with four young just hatched. The old bird did not fly, but stood 'seeping' about ten feet from me. He had changed his scold into the anxious 'seep! seep' of his vocabulary, 'till I turned towards him, when he ran off through the grass and did not fly until he had led me at least fifteen steps. He then rose and pitched upon a fallen tree top, bobbing up and down much after the fashion of a wren, and while I was examining him with my field glass he broke forth into song, as soft and sweet and full of gladness as that which at times wells from his throat when the shadows of evening creep over his sombre pines.

"This was a beautiful structure, when compared with one which I found on the 23rd of May. This last was scarcely woven into a fabric, and fell to pieces when I lifted it from the ground.

"June 6th. Found nest of *P. ae. bachmani*. This nest when found contained two eggs; it was domed as the previous nests, but was so thin and poorly constructed that I

could see the eggs through the straw as I stood behind it. The parent ran from the nest. I have yet to see one fly as other birds do when disturbed at incubation. They run; some showing great alarm for the safety of their little thatched domicile and its contents and expressing it by a sound resembling more the hissing of a snake than the scolding of a bird. If the intruder follows they continue to run till they have led him some distance from the nest and then they fly upon a tree and begin their 'seep, seep,' all the while accompanying these sounds with movements up and down, or jerking of the body like a wren.

"These birds are terrestrial in their habits, though when flushed they often light in trees. Frequently they rise when disturbed suddenly, with an audible whir which distinguishes them from the field sparrow.

"They sing at all hours of the day; but especially is their song striking and attractive after sunset, and when darkness begins to descend—a prelude of some sweet soul-stirring sounds and then a trill louder and more melodious than that of the field sparrow. This prelude is varied, and relieves the song of monotony; the little musician seems to endeavor to make himself as entertaining as possible, by frequent change in the introductory notes of his strain."

There follow a few more nesting records condensed from the Doctor's note books:

May 12, 1888. Greensboro. Nest on ground between two tufts of broom sedge; contained three young and one egg.

June 29, 1888. Greensboro. Nest in an old field near a loblolly pine, on the edge of a portion of the primitive forest. Four eggs, incubation just begun. "Fayette Sheppard was ploughing when the parent bird flew from under the feet of his oxen. He thought the bird was a snake and struck several times at the place where he had seen it, 'till he discovered the nest."

May 16, 1889, the Doctor found a young Bachman's sparrow that could just fly and a nest with four fresh eggs of the same species.

In view of the extended observation of this bird by Dr. Avery it is strange that his published account should total just these three words: "Common. Resident. Breeds." (1891a). He noted the species in Baldwin County too, between Sept. 16th and Oct. 2, 1892.

Several of the skins and sets of eggs were presented to Capt. Chas. E. Bendire of the Smithsonian Institution.

- No. 312. Male. Greensboro. Dec. 13, 1889. W. C. Avery.
- No. 347. Male. Greensboro. Jan. 12, 1890. W. C. Avery.
- No. 367. Male. Greensboro. Feb. 7, 1890. W. C. Avery.
- No. 378. Male. Greensboro. Feb. 21, 1890. W. C. Avery.
- No. 422. Male. Greensboro. Mar. 15, 1890. W. C. Avery.
- No. 513. Male. Greensboro. May 11, 1890. W. C. Avery.
- No. 647. Female. Greensboro. Sept. 5, 1890. W. C. Avery.
- No. 731. Male. Greensboro. Oct. 4, 1890. W. C. Avery.
- No. 734. Female. Greensboro. Oct. 6, 1890. W. C. Avery.

139. MELOSPIZA MELODIA MELODIA (Wilson).
SONG SPARROW.

"Common. Winter resident." (1891a).

- No. 263. Female. Greensboro. Nov. 9, 1889. W. C. Avery.
- No. 281. Male. Greensboro. Nov. 30, 1889. W. C. Avery.
- No. 296. Female. Greensboro. Dec. 8, 1889. W. C. Avery.
- No. 321. Female. Greensboro. Dec. 20, 1889. W. C. Avery.
- No. 345. Female. Greensboro. Jan. 4, 1890. W. C. Avery.
- No. 379. Female. Greensboro. Feb. 21, 1890. W. C. Avery.
- No. 410. Female. Greensboro. Mar. 11, 1890. W. C. Avery.
- No. 790. Male. Greensboro. Oct. 24, 1890. W. C. Avery.
- No. 814. Female. Greensboro. Mar. 17, 1891. W. C. Avery.

140. MELOSPIZA GEORGIANA (Latham).
SWAMP SPARROW.

"Common. Winter resident." (1891a).

A late spring record, May 3, 1891, is found in the Doctor's journal.

- No. 268. Male. Greensboro. Nov. 9, 1889. W. C. Avery.
- No. 301. Female. Greensboro. Dec. 10, 1889. W. C. Avery.
- No. 797. Male. Greensboro. Oct. 25, 1890. W. C. Avery.
- No. 1087. Male. Greensboro. Oct. 12, 1893. W. C. Avery.

141. PASSERELLA ILIACA ILIACA (Merrem).
FOX SPARROW.

"Not common. Winter resident." (1891a).

After the entries of Nos. 978 and 979 in the Doctor's catalog appear these notes:

"Today (Jan. 19, 1892) we have had the coldest weather for several years; sleet and ground frozen. I have never seen the fox sparrow near any habitation unless it were very cold. In a very cold spell, about 1876, several came into the yard at 'Contentment,' where there were also many more birds than I have seen lately. Nos. 977 and 978 were shot near my house at Pine Knoll, during the very cold weather of the 19th. Crows contained weed seed."

"Saw several fox sparrows today (Jan. 22, 1892)."

No. 310.	Male.	Greensboro.	Dec. 13, 1889.	W. C. Avery.
No. 369.	Male.	Greensboro.	Feb. 7, 1890.	W. C. Avery.
No. 806.	Male.	Greensboro.	Nov. 19, 1890.	W. C. Avery.
No. 977.	Male.	Greensboro.	Jan. 19, 1892.	W. C. Avery.
No. 978.	Male.	Greensboro.	Jan. 19, 1892.	W. C. Avery.
No. 979.	Male.	Greensboro.	Jan. 22, 1892.	W. C. Avery.
No. 981.	Male.	Greensboro.	Jan. 24, 1892.	W. C. Avery.
No. 982.	Female.	Greensboro.	Jan. 25, 1892.	W. C. Avery.

142. *PIPILO ERYTHROPHTHALMUS ERYTHROPHTHALMUS* (Linnæus).

TOWHEE.

"Joree."

"Common. Winter resident." (1891a).

No. 966.	Female.	Greensboro.	Dec. 29, 1891.	W. C. Avery.
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143. *PIPILO ERYTHROPHTHALMUS ALLENI* (Coues).

WHITE-EYED TOWHEE.

Among the Doctor's Baldwin County notes for the period from Sept. 16th to Oct. 2, 1892, is the following: "Towhee was common; out of five specimens taken one only belonged to *alleni*, the others being typical *Pipilo*." Only three of the Baldwin County specimens are now in the collection, but two are referable to *alleni* and one to *canaster*.

No. 998.	Male.	Baldwin County.	Sept. 27, 1892.	W. C. Avery.
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No. 1000.	Male.	Baldwin County.	Sept. 29, 1892.	W. C. Avery.
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144. *PIPILO ERYTHROPHTHALMUS CANASTER* (Howell).

ALABAMA TOWHEE*.

"Joree."

This is the breeding form in Central Alabama.

*Proc. Biol. Soc. Wash., Vol. XXVI, pp. 199-202, Oct. 23, 1913.

- No. 290. Male. Greensboro. Dec. 2, 1889. W. C. Avery.
 No. 1001. Female. Baldwin Co. Oct. 1, 1892. W. C. Avery.
 No. 1090. Male. Greensboro. Oct. 25, 1893. W. C. Avery.

145. CARDINALIS CARDINALIS CARDINALIS (Linnæus).
 CARDINAL.
 "Redbird."

Considering how common and easily accessible are the nests of the redbird about the thickets and brier-patches in spring, it is not surprising that Dr. Avery should collect a set of eggs before taking the bird itself. The following is taken from his early "Oological Register.":

"No. 2. Nest of Cardinal Grosbeak (Red-bird)—*Cardinalis virginianus*—27th May, 1876. I discovered, by the twitterings of the parent birds, this nest in a blackberry vine. The cardinal builds its nest on trees or shrubs near the ground. This nest contained three eggs, the whole 'clutch.' I waited several days after I found it; expecting the old bird to lay another egg; but finding her constantly on the nest, I became aware that she was sitting."

The small number of eggs laid by the cardinal seems to have interested the Doctor, for in 1890 he published the following under the title "Number of Eggs in a Set of the Cardinal.":

"In Hale county, Alabama, three eggs constitute a complete set of the cardinal. More than three have never been found by me, nor by any one else whom I know in this locality. Dr. J. M. Pickett of Cedarville, Alabama, has had the same experience as myself; he has never collected a set of more than three of the cardinal, although he has taken many sets.

"The cardinal is one of our commonest birds, nesting from early in April till September, and therefore producing more than one set. This bird may lay fewer eggs to the set than in localities farther north, where the nesting period is short, and where one set may be the usual number.

"Davie in *Nests and Eggs of North American Birds* says that the red-eyed vireo lays three or four eggs; in this latitude it lays only three. Having, like the cardinal,

a longer time for nesting, it produces fewer eggs to the set, but in all probability lays three more sets than in colder regions. It would be a very great surprise to me to find a set of more than three eggs in a nest of the cardinal or of the red-eyed vireo." (1890c).

The same year he entered in his journal: "This bird (No. 803) had not long finished moulting; there were some pin feathers in his wing. It may be observed in this connection that the cardinal moults very late; and I believe he rears at least two sets of young every season. He may be heard singing late in August when most other birds are silent, as they are losing their feathers and donning a new suit, a process which takes the music out of them."

"Abundant. Resident. Breeds." 1891a).

- No. 287. Female. Greensboro. Nov. 30, 1889. W. C. Avery.
- No. 288. Male. Greensboro. Nov. 30, 1889. W. C. Avery.
- No. 316. Male. Greensboro. Dec. 13, 1889. W. C. Avery.
- No. 605. Male-hornot. Greensboro. Aug. 23, 1890. W. C. Avery.
- No. 758. Female. Greensboro. Oct. 16, 1890. W. C. Avery.
- No. 803. Male. Greensboro. Nov. 2, 1890. W. C. Avery.
- No. 908. Male-hornot. Greensboro. Aug. 29, 1891. W. C. Avery.
- No. 942. Male. Greensboro. Sept. 29, 1891. W. C. Avery.
- No. 974. Male. Greensboro. Jan. 10, 1892. W. C. Avery.
- No. 980. Male. Greensboro. Jan. 22, 1892. W. C. Avery.
- No. Female. No data.

146. ZAMELODIA LUDOVICIANA (Linnæus).
ROSE-BREADED GROSBILL.

"It has been observed only as an autumn migrant. Rare." (1891a).

- No. 702. Female. Greensboro. Sept. 25, 1890. W. C. Avery.
- No. 1071. Female. Greensboro. Sept. 26, 1893. W. C. Avery.
- No. 1076. Female. Greensboro. Oct. 4, 1893. W. C. Avery.
- No. Male. No data.

147. GUIRACA CÆRULEA CÆRULEA (Linnæus).
BLUE GROSBILL.

After cataloging his first specimen of this species, an adult male taken at Greensboro, June 6, 1876, Dr. Avery writes:

"This bird is not common in this part of Alabama. His song, which I have heard only once, is very sweet. He seems to be granivorous, as he may be seen along the edges of oat fields, or in the roads at times—where grain may be found either in the dung of horses or wasted there when carried to mill.

"He is very shy for so small a bird. His call note is a chirp like that of the cardinal grosbeak, with this modification: the chirp of the blue grosbeak is to the chirp of the red-bird as the ring of a silver dollar is to the thump of a copper cent or to that of a nickel.

"The indigo-bird has a note very similar to the chirp of these two grosbeaks, but much feebler.

"The blue-grosbeak disappears from this part of Alabama on the approach of cold weather."

Eleven days later a female, whose "stomach contained grains of wheat and debris of insects," was taken in the same locality.

Early in June, 1888, the Doctor collected a set of four eggs, with nest, from a sweet gum, about three feet from the ground, but unfortunately he neglected to record the exact date. Dimensions of nest: Circumference around rim, 11.50 in.; outside depth 3 in.; inside depth, 1.50 in.; outside diameter, 4 in.; inside diameter, 2.75 in. Materials: "Foundation: dried stems of herbs; then also woven in, portions of snake shed; then leaves of coarse grass woven in with the leaves of deciduous trees; the whole lined with dry grass stems. This nest was on a pine hill in an open locality a few steps from a path."

"Common. Summer resident. Breeds." (1891a).

- No. 424. Male. Greensboro. Apr. 18, 1881 (?). W. C. Avery.
- No. 568. Male-juv. Greensboro. Aug. 12, 1890. W. C. Avery.
- No. 709. Female. Greensboro. Sept. 26, 1890. W. C. Avery.
- No. 710. Female. Greensboro. Sept. 26, 1890. W. C. Avery.
- No. 854. Male. Greensboro. May 23, 1891. W. C. Avery.

148. PASSERINA CYANEA (Linnaeus).

INDIGO BUNTING.

"Indigo Bird."—*"Summer Bluebird."*

The Doctor's first specimen of this species was an adult male taken at Greensboro, June 3, 1876. Its stomach "contained seeds, sand, and small oblong, white bodies

which I took for seeds not matured." After the entry of the specimen the Doctor wrote:

"This bird is a beautiful blue, which for the want of a better name I have called 'summer blue-bird.' He is found in Alabama during the spring and summer and disappears with cold weather. The female has nothing of the beauty of plumage of the male. She can hardly be distinguished from a sparrow as to color."

Recording the capture of another specimen, July 6, 1886, he writes:

"*C. cyanea* is not a rare bird in this locality. The mate doubtless of this very bird, for several weeks past, perched every morning upon the top of a gum near my door, has made his song heard. It nests here."

April 6, 1887, the Doctor records hearing the song of the first arrival of the season. Oct. 18, 1890, he enters a late record for the species.

"Abundant. Breeds." (1891a).

- No. 146. Female-ad. Greensboro. May 22, 1889. W. C. Avery.
- No. 164. Male. Greensboro. June 8, 1889. W. C. Avery.
- No. 534. Female. Greensboro. June 26, 1890. W. C. Avery.
- No. 535. Female-hornot. Greensboro. June 26, 1890. W. C. Avery.
- No. 577. Male-hornot. Greensboro. Aug. 15, 1890. W. C. Avery.
- No. 578. Male-ad. Greensboro. Aug. 15, 1890. W. C. Avery.
- No. 648. Female. Greensboro. Sept. 5, 1890. W. C. Avery.
- No. 678. Female. Greensboro. Sept. 15, 1890. W. C. Avery.
- No. 831. Male. Greensboro. May 4, 1891. W. C. Avery.
- No. 1058. Male. Greensboro. May 4, 1893. W. C. Avery.

149. SPIZA AMERICANA (Gmelin).

DICKCISSEL.

"Black-throated Bunting." "Prairie Lark."

One June 6, 1876, Dr. Avery records his first dickcissel, an adult male taken at Greensboro, as No. 9 of his old series. He remarks: "Stomach contained comminuted fragments of insects, no grain that I could discover."

"This little bird affects the black lands, cane brake and 'prairies.' He is found along the road-sides, where he often builds his nest in the thick foliage of the 'haw,' or other low shrubs and trees.

"Perched upon the top-most spray of tree or shrub by the roadside, his cheerful, but monotonous notes may be

heard during the spring and summer. He disappears on the approach of cold weather."

July 17, 1876, the following record was added to the "Oological Register" as the last entry in that series: "No. 7. Nest of black-throated bunting—*Euspiza americana*. Clutch of four eggs. Two of the eggs fell from the nest and were broken in bringing it home. I found this nest in a small hackberry, a few feet from the ground. These birds build their nests in shrubs or trees, near the ground."

"Common in the black lands in the southern portion of the county. Summer resident. Breeds." (1891a).

No. 514. Male. Greensboro. May 11, 1890. W. C. Avery.

No. 851. Female. Greensboro. May 23, 1891. W. C. Avery.

No. 852. Male. Greensboro. May 23, 1891. W. C. Avery.

150. PIRANGA ERYTHROMELAS (Vieillot).
SCARLET TANAGER.

"Rare. Only observed during the autumn migration. One specimen taken on October 16 last. (1891a).

The species is a fairly common spring migrant in Alabama, and two years after the publication of the foregoing note the Doctor captured No. 1056 listed below.

No. 760. Male. Greensboro. Oct. 16, 1890. W. C. Avery.

No. 924. Male. Greensboro. Sept. 18, 1891. W. C. Avery.

No. 932. Male. Greensboro. Sept. 23, 1891. W. C. Avery.

No. 933. Male. Greensboro. Sept. 24, 1891. W. C. Avery.

No. 943. Male. Greensboro. Oct. 1, 1891. W. C. Avery.

No. 944. Female. Greensboro. Oct. 2, 1891. W. C. Avery.

No. 945. Male. Greensboro. Oct. 2, 1891. W. C. Avery.

No. 1056. Male. Greensboro. May 3, 1893. W. C. Avery.

151. PIRANGA RUBRA RUBRA (Linnæus).
SUMMER TANAGER.
"Summer Redbird."

Dr. Avery did not become acquainted with the home life of this common species until he had reached middle age—another bit of evidence that his interest in the birds was long delayed. But be it said to his credit that when he did undertake the study of ornithology he was thorough.

Under date of June 21, 1875, the fortieth anniversary of his birth, the following paragraph is entered in French

in his journal: "I found to-day in an oak the nest of a tanager. It is the first that I have ever seen."

In the first series of numbers, 13 was an adult male summer tanager shot near Greensboro, June 9, 1876, and later presented to the Smithsonian Institution. Under this entry is written: "Stomach contained debris of insects, was stained internally with the juice of blackberries, and contained some seeds of blackberries."

"Found here in summer and spring. Disappears when its food becomes scarce."

"*Pyrrhula rubra* and *Pyrrhula aestiva* are the same bird. There is quite a variety of plumage in the tanager; some (the males) being red and green, others red having the wings and tail slightly shaded with black." (The variation in the plumage of the summer tanager is one of age and season and occurs only in the male. The female is constantly orange olive-green above, with yellowish orange underparts.)

Among the old journal sheets are three or four pages of "Oological Register," the first entry of which follows in toto:

"No. 1 Nest of *Pyrrhula rubra*; 26 May, 1876. This nest was found in an oak tree on the Greensboro and Millwood road $11\frac{1}{2}$ miles southwest of Greensboro, and very near 'Contentment.' 'Clutch' of four eggs."

"The nest was built on an oak limb within a few feet of the ground, and overhanging the side of the road. In walking under the limb I frightened the bird, and suspecting that there must be a nest, upon search I found it concealed by the dense foliage; and but for her having flown, the parent bird might have kept the secret, hatched her brood and departed undisturbed with her off-spring to her winter home."

"This bird, called also *Tanagra aestiva*, affects the oak as a building place. He appears in our country early in the spring as soon as his insect food becomes abundant and disappears in the fall with frost. The male may often be seen perched high upon a dead limb of his oak home, where he pours forth his song, not a very melodious one. His notes are rather feeble, but quite sweet."

He reminds one of a young lady who is trying very hard to make herself exceedingly agreeable by singing, but who has but a mediocre voice, and sings always the same song."

A specimen of summer tanager taken June 23, 1888, was presented to Dr. A. K. Fisher of Washington, D. C. This note is interesting because it indicates Dr. Avery's correspondence with noted ornithologists.

"Abundant. Summer resident. Breeds." (1891a).

- No. 25. Female. Greensboro. May 21, 1887. W. C. Avery.
- No. 163. Male. Greensboro. June 8, 1889. W. C. Avery.
- No. 517. Male. Greensboro. May 12, 1890. W. C. Avery.
- No. 526. Male. Greensboro. May 31, 1890. W. C. Avery.
- No. 585. Female. Greensboro. Aug. 18, 1890. W. C. Avery.
- No. 642. Male. Greensboro. Sept. 4, 1890. W. C. Avery.
- No. 656. Female. Greensboro. Sept. 6, 1890. W. C. Avery.
- No. 699. Female. Greensboro. Sept. 23, 1890. W. C. Avery.
- No. 706. Female. Greensboro. Sept. 25, 1890. W. C. Avery.
- No. 830. Female. Greensboro. May 3, 1891. W. C. Avery.
- No. 904. Female. Greensboro. Aug. 25, 1891. W. C. Avery.
- No. 909. Female. Greensboro. Aug. 30, 1891. W. C. Avery.
- No. 923. Male. Greensboro. Sept. 17, 1891. W. C. Avery.
- No. 940. Male. Greensboro. Sept. 26, 1891. W. C. Avery.
- No. 989. Male. Greensboro. Apr. 14, 1892. W. C. Avery.
- No. 993. Male-hornot. Greensboro. Sept. 9, 1892. W. C. Avery.

152. PROGNE SUBIS SUBIS (Linnæus).
PURPLE MARTIN.

In a letter to the Editor of the "American Field," in June, 1884, Dr. Avery stated that on March 21st of that year he "Saw also, for the first time this season, *Progne purpurea*." (1884).

"Common. Summer resident. Breeds." (1891a).

No. 1044. Male. Greensboro (Cocke's Pond). Apr. 15, 1893. W. C. Avery.

153. PETROCHELIDON LUNIFRONS LUNIFRONS (Say).
CLIFF SWALLOW.

"Observed only in the spring: have not found it nesting here." (1891b).

- No. 501. Male. Greensboro. May 6, 1890. W. C. Avery.
- No. 502. Male. Greensboro. May 6, 1890. W. C. Avery.

154. *HIRUNDO ERYTHROGASTRA* (Boddaert).
BARN SWALLOW.

"Spring and autumn migrant. Abundant." (1891b).

- No. 505. Female. Greensboro. May 7, 1890. W. C. Avery.
No. 506. Male. Greensboro. May 7, 1890. W. C. Avery.
No. 507. Female. Greensboro. May 7, 1890. W. C. Avery.
No. 509. Male. Greensboro. May 7, 1890. W. C. Avery.

155. *STELGIDOPTERYX SERRIPENNIS* (Audubon).
ROUGH-WINGED SWALLOW.

"Observed in the spring. Not found breeding. Common." (1891b).

Further field work should certainly prove this species to be a common breeder in Hale County.

- No. 477. Male. Greensboro. Apr. 23, 1890. W. C. Avery.
No. 478. Female. Greensboro. Apr. 23, 1890. W. C. Avery.
No. 508. Female. Greensboro. May 7, 1890. W. C. Avery.
No. 879. Male. Anniston. July 7, 1891. W. C. Avery.
No. 880. Female. Anniston. July 7, 1891. W. C. Avery.
No. 881. Female-hornot. Anniston. July 7, 1891. W. C. Avery.
No. 882. Hornot. Anniston. July 7, 1891. W. C. Avery.

156. *BOMBYCILLA CEDRORUM* (Vieillot).
CEDAR WAXWING.
"Cedarbird." "Seal."

This demure little grayish-brown species bears the distinction of furnishing the subject of the first ornithological record to be found in Dr. Avery's papers. Under date of May 23, 1876, is found this entry on a page cut from an old journal:

"No. 1. 3 miles southwest of Greensboro;

"*Ampelis Cedrorum*; male adult;

"Was so fat that I found some difficulty in keeping the skin from being soiled by the grease. His stomach contained a black mulberry. This bird is a migrant, passing a short time with us during the spring."

Here is another original entry, dated April 11, 1890:

"About half an hour before sunset I saw a cedarbird perched on a liquidambar tree. It being unusual to see one of these birds alone, I watched it for some minutes, 'till darkness put an end to my observations. It sat motionless for some minutes on its perch and then sallied forth in pursuit of a passing insect; behaving like a fly-

catcher, except that it changed its perch at each flight taken.

"It finally disappeared in a thicket and I looked in vain to find its roosting place.

"From the shape of the bill of the cedarbird (*Ampelis cedrorum*) it might have been deemed a flycatcher, as it really is if the catching of insects can make it such."

"Winter resident. Common." (1891b).

No. 436. Female. Greensboro. April 1, 1890. W. C. Avery.

No. 437. Female. Greensboro. April 1, 1890. W. C. Avery.

No. 438. Male. Greensboro. April 1, 1890. W. C. Avery.

No. 439. Male. Greensboro. April 1, 1890. W. C. Avery.

No. 780. Male-juv. Greensboro. Oct. 22, 1890.

No. Odd specimen. No data.

157. LANIUS LUDOVICIANUS LUDOVICIANUS (Linnaeus).
LOGGERHEAD SHRIKE.

"Butcher-bird."

The first note of interest regarding this species is taken in full from the Doctor's "Oological Register:"

"No. 1. Name: *Lanius ludovicianus*.

"Locality: Near Greensboro, Alabama.

"Date: 25th April, 1887.

"Collector: Wm. C. Avery, M. D.

"Set 6. Identity: Shot parent. Incubation advanced.

"Nest: In a pine tree near the end of a limb and about 8 ft. from the ground.

"Description of nest. Dimensions of nest: External diameter 7 inches by 7 inches; internal 4 inches by $3\frac{1}{4}$ inches; depth two and a half inches. The nest is a large structure for so small a bird; the foundation is composed of sticks, some of which are more than a foot long; most of these sticks are from thorn trees—osage orange, plum and honey locust; this frame of coarse sticks supports a quantity of stalks of grass and bits of cotton; the nest is lined with fine bits of grass, cotton and feathers.

"Dimensions of eggs: No. 1 .95 by .75. Dull white; wreathed with confluent blotches about the larger end; color of spots and blotches brownish-black; specked with the same color and having some small spots on the less end and on the sides. No. 2 .96 by .76. Blotched with wreath of blackish-brown about larger end, blotches

spreading more about sides and extending lower than in No. 1. Some indistinct blotching, mingled with well defined spots and specks, reaching to less end; the latter being marked with faint specks. No. 3 .92 by .75. Covered with dark confluent blackish-brown blotches about larger end, the whole end being blotched; specked and spotted on sides with same color; small specks on less end. No. 4. .96 by .74. Blotched about larger end; spotted and specked on sides, the markings growing fewer and smaller at the less end. No. 5 .96 by .74. Thickly blotched at larger end, blotches, spots and specks sparsely scattered over sides and diminishing at less end to small specks. No. 6, .92 by .76. Wreathed with blotches confluent around larger end; some few spots towards less end, the latter specked."

"Common. Resident. Breeds." (1891b).

The loggerhead shrike was seen frequently by the Doctor during his stay in Baldwin County, Sept. 16 to Oct. 2, 1892.

- No. 239. Male. Greensboro. Oct. 9, 1889. W. C. Avery.
- No. 544. Male-hornot. Greensboro. July 17, 1890. W. C. Avery.
- No. 766. Male. Greensboro. Oct. 18, 1890. W. C. Avery.
- No. 767. Male. Greensboro. Oct. 18, 1890. W. C. Avery.
- No. 915. Female. Greensboro. Sept. 8, 1891. W. C. Avery.
- No. 1002. Male. Baldwin Co. Oct. 2, 1892. W. C. Avery.
- No. 1034. Female. Greensboro. Mar. 31, 1893. W. C. Avery.

158. VIREOSYLVA OLIVACEA (Linnæus).
RED-EYED VIREO.

Dr. Avery's earlier bird notes are very interesting inasmuch as they throw considerable light upon his progress in ornithology. No. 2 of his old series was a specimen of this common bird, but after carefully recording the sex, measurements, color of eyes, mandibles and tarsi, as was his custom, he writes, under date of May 24, 1876:

"I am little acquainted with this bird. He moves incessantly about among the dense foliage of forest trees where he seems to spend his time entirely. He is a summer resident and must build here, and rear his young. The testicles were much developed; being as large as

garden peas, while those of No. 1, *Ampelis Cedrorum*, were very small; showing that there had been no recent sexual excitement; the latter does not breed in this latitude; at least I have never seen his nest nor his young."

Recording another specimen, No. 18 (old series), under date of June 12, 1876, he writes:

"Stomach contained debris of insects and seeds of berries.

"The red-eyed greenlet, though seldom seen, is not uncommon. He warbles constantly among the dense foliage of the trees which are his home. I know not when he approaches the ground for I have never seen him there."

Under the next entry, No. 19, this note is found:

"This is the second bird of this species shot by me to-day. Though I have heard the bird and know him when I see him, I have not yet learned to recognize him by his song. This bird has 12 rectrices."

June 17, 1876, an adult female was taken at Greensboro, and the following note entered under the record:

"I secured the nest of this bird. It contained three white eggs, with dark brown specks at the larger end. The eggs are shaped very much like those of the partridge, being 'top-shaped,' shaped like a top."

Referring to this nest in his "Oological Register," Dr. Avery writes:

"It is a pensile nest, and was suspended to the lowest branch of an oak, so near the ground that I could not have walked under it without striking my head. The eggs are shaped very much like those of the partridge 'perdin virginiana' (Aud).

"It is probable that the parent might have laid an egg or two more, as the eggs did not appear to have been set upon. The old bird may have been on the nest for the purpose of laying. The germ of the egg seemed to be unchanged, there being no blood-vessels or no embryo formed."

The same day another specimen was recorded with this note:

"Stomach contained insects. This bird could not be distinguished from the female by the plumage."

On June 22, 1888, the Doctor took a set of three fresh eggs near Greensboro. Nest woven of the inner bark of cedar, lined with pine leaves, a few grass stems, and stems of moss, and bound to the forks of a horizontal branch, about ten feet from the ground, with spider webs and dried "moss" stems. Dimensions: Outside circumference of rim, 8 in.; outside depth, $2\frac{1}{2}$ in; inside depth, 2 in. Measurements of eggs: .72 by .56, .89 by .59, .78 by .58.

"Abundant. Summer resident. Breeds." (1891b).

The species was seen often during the Doctor's visit in Baldwin County, Sept. 16 to Oct. 2, 1892.

- No. 473. Female. Greensboro. April 25, 1890. W. C. Avery.
- No. 504. Male. Greensboro. May 6, 1890. W. C. Avery.
- No. 561. Male. Greensboro. Aug. 11, 1890. W. C. Avery.
- No. 579. Male. Greensboro. Aug. 15, 1890. W. C. Avery.
- No. 594. Female. Greensboro. Aug. 21, 1890. W. C. Avery.
- No. 622. Male. Greensboro. Aug. 29, 1890. W. C. Avery.
- No. 649. Female. Greensboro. Sept. 5, 1890. W. C. Avery.
- No. 768. Male. Greensboro. Oct. 18, 1890. W. C. Avery.

159. LANIVIREO FLAVIFRONS (Vieillot).
YELLOW-THROATED VIREO.

The first recorded specimen of this vireo was taken at Greensboro, June 17, 1876. The stomach contained "a worm and debris of beetles."

"Not common. Has not been observed during the summer by me, though Mr. Henry Young has found it breeding near Greensboro. Three specimens were taken by me last fall." (1891b).

When the Doctor published the foregoing, he must have forgotten his note of June 3, 1888, which follows:

"Saw yellow-throated vireo (*Vireo flavifrons*). These birds were in a gum thicket in an old field. I examined one carefully with a field glass and saw distinctly the yellow loreal stripe and circumorbital ring of yellow, also the yellow extending over chin, throat and breast; and the white wing bars on median and greater coverts."

- No. 570. Male. Greensboro. Aug. 14, 1890. W. C. Avery.
- No. 661. Male. Greensboro. Sept. 9, 1890. W. C. Avery.
- No. 906. Female. Greensboro. Aug. 27, 1891. W. C. Avery.
- No. 1046. Male. Greensboro. Apr. 20, 1893. W. C. Avery.

160. LANIVIREO SOLITARIUS ALTICOLA (Brewster).
MOUNTAIN VIREO.

"One example was secured during the migration this fall, the first and only one observed by me." (1891b).

No. 783. Female. Greensboro. Oct. 23, 1890. W. C. Avery.

161. VIREO GRISEUS GRISEUS (Boddaert).
WHITE-EYED VIREO.

The first record of this species was No. 12 of Dr. Avery's old series, an adult male taken at Greensboro, June 8, 1876. The stomach contained "debris of insects and matter which resembled vegetable matter." Four days later he recorded another male, and wrote: "I have not yet learned to distinguish this bird from the preceding (*Vireosylva olivacea*) by his notes. He rarely leaves the lofty tops of the forest trees. He is small but he does not 'roost low'."

This note is a palpable error and is included merely to show that the Doctor was just beginning the study of birds in 1876.

The following is found under date of June 17, 1876:

"This is a noisy little bird, and although smaller than the red-eye, his song is much louder. It is very difficult to find the red-eye on account of the feebleness of its note. Concealed among the dense foliage it sings unseen for hours. I yesterday heard for the first time, *to know it*, the song of *Vireo noveboracensis*, white-eyed vireo."

The following description of No. 31 (old series) taken next day indicates that the Doctor had been studying his "Coues":

"Upper mandible blackish; tip of lower mandible white, bordered posteriorly by a dark, sagittiform portion pointing anteriorly in gonys, and extending outwards and backwards to mandibular tomium, sides of under mandible extending back from gonys proper leaden blue."

"Abundant. Summer resident. Breeds." (1891b).

No. 195. Male. Greensboro. Sept. 7, 1889. W. C. Avery.

No. 551. Male. Greensboro. July 22, 1890. W. C. Avery.

No. 607. Female. Greensboro. Aug. 24, 1890. W. C. Avery.

No. 608. Male. Greensboro. Aug. 24, 1890. W. C. Avery.

No. 633. Female. Greensboro. Sept. 2, 1890. W. C. Avery.

- No. 643. Male. Greensboro. Sept. 4, 1890. W. C. Avery.
 No. 735. Male. Greensboro. Oct. 6, 1890. W. C. Avery.
 No. 769. Female. Greensboro. Oct. 18, 1890. W. C. Avery.

162. *MNIOTILTA VARIA* (Linnaeus).
 BLACK AND WHITE WARBLER.

"Not common as a summer resident. Abundant in the autumn migration." (1891b).

- No. 545. Male-hornot. Greensboro. July 21, 1890. W. C. Avery.
 No. 593. Female. Greensboro. Aug. 21, 1890. W. C. Avery.
 No. 1070. Female. Greensboro. Sept. 21, 1893. W. C. Avery.

163. *PROTONOTARIA CITREA* (Boddaert).
 PROTHONOTARY WARBLER.

The following note is Dr. Avery's first record of this species:

"The day (7th May, 1887) was quite cool in the morning, but the thermometer rose towards evening. I was standing near the pond fed by the large Cypress Slough well when I heard the song of a bird which I at first believed to be that of the indigo-bird. After searching for sometime for the author of the pleasing notes that kept resounding through the woods, I saw a prothonotary fly into a tree near the edge of the pond. It was not long before he began to sing and by creeping up I could see his bill vibrate as the notes welled from his throat. I watched him for sometime and to make assurance surer still I shot No. 15, to identify him beyond the question of a doubt."

The stomach of this specimen, taken near Greensboro, contained insects, as did that of another taken May 21, 1887, near the same place.

"Common. Summer resident. Breeds." (1891b).

- No. 15 (?). Male. Greensboro. April 5, 1889. W. C. Avery.
 No. 1060. Female. Greensboro. Aug. 25, 1893. W. C. Avery.

164. *HELINAIA SWAINSONI* (Audubon).
 SWAINSON'S WARBLER.

"On the 6th of September, while collecting about four miles southwest of Greensboro, Alabama, I took a specimen of Swainson's warbler. As far as I know, this is

the first recorded instance of the capture of this warbler in Alabama." (1890b).

"On September 6, last, I took the first specimen of this warbler, and the only one that I ever saw. In April of 1878 three specimens of this rare warbler were met with by Mr. N. C. Brown, at Coosada, Elmore county, this State, near the junction of the Coosa and Tallapoosa rivers. He secured two of these warblers. The one captured by me on September 6, last, is then the third specimen taken in this State, and the fourth observed. It was doubtless migrating, as the locality where it was shot could hardly have been the summer habitat of Swainson's warbler. About eleven o'clock on that day, as I was walking along the edge of a stream of water flowing from an artesian well, and in a grove of hardwood trees, a number of birds drinking and bathing in this stream flew up from the water. Among them I observed a curious looking little bird that seemed to watch me intently from the crotch of a sapling where he was seated motionless and silent. Without a moment's hesitation I shot the bird, which proved to be Swainson's warbler." (1891b).

No. 652. Female-juv. Greensboro. Sept. 6, 1890. W. C. Avery.

165. HELMITHEROS VERMIVORUS (Gmelin).
WORM-EATING WARBLER.

"Observed during the autumn migrations only. The first was observed last year on August 9, the last on September 19. It cannot be called a common bird, as during the period between these two dates, though I made almost daily observations, I never met, on one day, with more than three specimens of this warbler." (1891b).

- No. 193. Male. Greensboro. Sept. 5, 1889. W. C. Avery.
- No. 213. Male. Greensboro. Sept. 13, 1889. W. C. Avery.
- No. 600. Male. Greensboro. Aug. 23, 1890. W. C. Avery.
- No. 609. Female. Greensboro. Aug. 25, 1890. W. C. Avery.
- No. 610. Male. Greensboro. Aug. 25, 1890. W. C. Avery.

166. VERMIVORA CHRYSOPTERA (Linnæus).
GOLDEN-WINGED WARBLER.

"Observed, like the preceding species, only during the autumn. First seen this year on August 11, last on October 4. Not common." (1891b).

- No. 203. Male. Greensboro. Sept. 11, 1889. W. C. Avery.
 No. 204. Male. Greensboro. Sept. 11, 1889. W. C. Avery.
 No. 205. Male. Greensboro. Sept. 11, 1889. W. C. Avery.
 No. 562. Male. Greensboro. Aug. 11, 1890. W. C. Avery.
 No. 729. Female. Greensboro. Oct. 4, 1890. W. C. Avery.
 No. 898. Male. Greensboro. Aug. 21, 1891. W. C. Avery.

167. VERMIVORA PEREGRINA (Wilson).
 TENNESSEE WARBLER.

"Only one specimen, and that my first, has been taken near Millwood in the Warrior River bottom, on October 4 last." (1891b).

- No. 728. Female. Greensboro. Oct. 4, 1890. W. C. Avery.
 No. 1092. Female. Greensboro. Oct. 18, 1893. W. C. Avery.

168. COMPSOTHTYPIS AMERICANA AMERICANA
 (Linnæus).
 PARULA WARBLER.

"Common during spring and autumn migrations. A few remain all the summer and breed perhaps, though I have no other evidence of this than that the Parula warbler is a summer resident of Hale County." (1891b).

A couple of years after the publication of the foregoing the Doctor secured all the evidence that he wanted, as testified by the following extended notes taken from his journal for 1893:

"April 9th. Today while making observations on the nest of the yellow-throated warbler found on the 4th, a little bird was seen gathering material from a stump near the water-oak, the nesting site of *D. dominica* No. 2.

"The field glass revealed a female parula warbler. She flew about seventy yards and perched for a moment in a black gum; a second flight took her to the top of a sweet gum; she descended immediately to a pendent bunch of *Tillandsia*, disappeared in the moss, made two or three flights from the tree, always returning to the same place on the tree and entering the same bunch of moss. There could be no doubt as to what she was doing, and I had my first ocular demonstration of the fact that the parula warbler breeds in Hale County, Alabama, though its occurrence here in mid-summer had seemed to me sufficient evidence that it nests in this county.

"The busy little architect was observed sometime at her occupation. She did not always fly in the same direction in search of material, nor did she always light directly on the bunch of moss; she frequently lighted on the top of the sweet gum and descended to her nest. This nest is suspended in the streaming moss, at least two feet under the limb. The moss is woven together, and the nest contains some spider web, as Asbury, who climbed to it, has informed me. Much pleasure is anticipated in taking a full set of this bird's eggs, hitherto unknown to me.

"This little warbler returns from his winter home towards the latter part of March and the first of April. A specimen was taken March 26, 1892; the label contains this observation: 'Male in breeding plumages; testes much enlarged.' This is my earliest record of the arrival of *Compsothlypis americana*; my latest is September 19th, though the latter date is probably not that of the latest occurrence of this bird in Hale County. Some individuals remain with us till the first of October.

"April 10. Another parula was observed today gathering material from a stump on the edge of a field. Fortunately, though she flew at least a hundred and fifty yards into the woods, with the assistance of Asbury her nest was discovered. When she had collected from the stump what she needed and had begun her flight towards her nest, I announced the fact to Asbury who was stationed at least a hundred yards within the woods on the edge of an opening across which she had to fly. So rapid was her flight and so thick the woods when she passed beyond the opening that her destination could not be exactly determined. A certain gum tree covered with gray moss appeared to be the most likely place to find her, but though we watched some time in the morning our little warbler escaped our observation. In the afternoon, however, about four o'clock, we returned and found that she was building in the gum tree. Her nest could be seen through the *Tillandsia* just under a limb about fifteen feet from the ground.

"Another female parula which seemed to be building was seen today but she could not be traced to her nest.

"April 12. Parula still building in West Jones' woods in the gum tree.

"April 23. The parula warbler's nest discovered on the 10th was examined this morning and found to contain four eggs. On being frightened from the nest she seemed much distressed, flying within a few feet of the tree and chirping loudly for so small a bird. She was examined with a powerful field glass, making identification positive. This parula was seen building her nest on the 12th, two days after it was found; allowing two more days for its completion, I conclude that she has laid her set of four eggs in nine or ten days.

"April 24th. The parula warbler's nest discovered to be building on the 10th was taken today and contained four slightly incubated eggs.

"Nest in a sweet gum, 20 ft. from the ground, and on a horizontal limb four feet from the body of the tree.

"The nest had a hole or entrance into the bunch of moss just above its rim; it is suspended in the moss without other support than the moss itself.

"May 10th. This nest of the parula was in an elm tree, forty-five feet from the ground and fifteen feet from the body of the tree. It was found by Asbury on the 28th of April. He saw the female carrying material to build her nest. It was taken just 12 days after the bird was seen building. This bird is probably the same parula that was building first on April 10th, and whose nest was taken on the 23rd, just thirteen days from the time she was first seen building her nest.

"Five days then elapsed from the taking of her nest till the 28th, when she was again found building, and from the 28th of April to the 10th of May, when the second nest was taken, there had passed just twelve days or not two weeks. Seventeen days, or not much over two weeks, transpired between the taking of these two nests of the parula, built I believe by the same bird. From the time the first nest was first seen building 'till the taking the second nest, there passed just thirty days or one month. Then this bird built two nests and laid two sets of eggs in thirty days or one month's time. In

fact in somewhat less than a month, for incubation had begun when the second set was collected."

- No. 209. Female. Greensboro. Sept. 11, 1889. W. C. Avery.
- No. 569. Female. Greensboro. Aug. 12, 1890. W. C. Avery.
- No. 574. Sex (?). Greensboro. Aug. 14, 1890. C. S. Brimley.
- No. 665. Male. Greensboro. Sept. 9, 1890. W. C. Avery.
- No. 690. Male. Greensboro. Sept. 19, 1890. W. C. Avery.
- No. 850. Female. Greensboro. May 23, 1891. W. C. Avery.
- No. 910. Male. Greensboro. Sept. 3, 1891. W. C. Avery.
- No. 988. Male. Greensboro. Mar. 26, 1892. W. C. Avery.
- No. Female. No data.

169. DENDROICA ÆSTIVA ÆSTIVA (Gmelin).
YELLOW WARBLER.

"Spring and autumn migrant. Not common." (1891c).

- No. 30 (?). Female. Greensboro. Aug. 10, 1889. W. C. Avery.
- No. 449. Male. Greensboro. Apr. 12, 1890. W. C. Avery.
- No. 471. Male. Greensboro. Apr. 21, 1890. W. C. Avery.
- No. 558. Female. Greensboro. Aug. 11, 1890. W. C. Avery.

170. DENDROICA CORONATA (Linnæus).
MYRTLE WARBLER.
"Yellow-rumped Warbler."

Recording his first specimen of this species, taken Jan. 14, 1878, at Greensboro, the Doctor writes: "Stomach contained debris of cedar berries. Abundant here in the winter and found frequently in company with bluebirds."

"Common. Winter resident." (1891c).

- No. 376. Female. Greensboro. Feb. 21, 1890. W. C. Avery.
- No. 397. Male. Greensboro. Mar. 5, 1890. W. C. Avery.
- No. 413. Female. Greensboro. Mar. 13, 1890. W. C. Avery.
- No. 427. Female. Greensboro. Mar. 15, 1890. W. C. Avery.
- No. 434. Male. Greensboro. Mar. 26, 1890. W. C. Avery.
- No. 435. Male. Greensboro. Mar. 26, 1890. W. C. Avery.
- No. 773. Female. Greensboro. Oct. 20, 1890. W. C. Avery.
- No. 776. Female. Greensboro. Oct. 21, 1890. W. C. Avery.
- No. 781. Female. Greensboro. Oct. 22, 1890. W. C. Avery.
- No. 785. Female. Greensboro. Oct. 23, 1890. W. C. Avery.
- No. 786. Female. Greensboro. Oct. 23, 1890. W. C. Avery.

171. DENDROICA MAGNOLIA (Wilson).
MAGNOLIA WARBLER.

"Has not been observed in the spring. First seen this fall on the 9th of September, last observed on the 19th of October." (1891c).

- No. 698. Female. Greensboro. Sept. 23, 1890. W. C. Avery.
 No. 933 (?). Female. Greensboro. Oct. 2, 1890. W. C. Avery.
 No. 1073. Male. Greensboro. Sept. 27, 1893. W. C. Avery.
 No. 1079. Male. Greensboro. Oct. 8, 1893. W. C. Avery.
 No. 1081 (?). Female. Greensboro. Sept. 17, 1893. W. C. Avery.
 No. Male. No data.

172. *DENDROICA CERULEA* (Wilson).
 CERULEAN WARBLER.

"Rare. My first acquaintance with this warbler was on May 10, 1887, when I took a pair in the Warrior River bottom, twelve miles southwest of Greensboro. These were the only specimens met with, 'till this fall, when C. S. Brimley took three two miles west of Greensboro, some time between August 9 and 17. I do not recall the exact date. One of these specimens was an adult male, and the others were one male and one female, both young and in fall plumage." (1891c).

A male taken two miles west of Greensboro, March 26, 1890, was recorded as No. 431 in the Doctor's catalogue, but unfortunately it is no longer in the collection.

- No. 16. Male-adult. Greensboro. May 10, 1887. W. C. Avery.
 No. 17. Female-adult. Greensboro. May 10, 1887. W. C. Avery.

173. *DENDROICA PENNSYLVANICA* (Linnæus).
 CHESTNUT-SIDED WARBLER.

"Not common. A spring and autumn migrant. First observed, this year, during the fall migration, on August 29. October 14 last." (1891c).

- No. 496. Female. Greensboro. May 4, 1890. W. C. Avery.
 No. 619. Female. Greensboro. Aug. 29, 1890. W. C. Avery.
 No. 715. Female. Greensboro. Sept. 30, 1890. W. C. Avery.
 No. 730. Male. Greensboro. Oct. 4, 1890. W. C. Avery.
 No. 903. Male. Greensboro. Aug. 25, 1891. W. C. Avery.
 No. 1077. Female. Greensboro. Oct. 4, 1893. W. C. Avery.
 No. Female. No data.
 No. No data.

174. *DENDROICA CASTANEA* (Wilson).
 BAY-BREASTED WARBLER.

The Doctor took a single individual of this, one of the rarer warblers in Alabama, but his note books contain only the bare catalogue entry of the specimen.

- No. 1055. Female. Greensboro. May 3, 1893. W. C. Avery.

175. *DENDROICA STRIATA* (J. R. Forster).
BLACK-POLL WARBLER.

"One individual of this species, the first and only one, was observed eight miles south of Greensboro, May 5, 1889." (1891c).

The Doctor collected the following specimen subsequently to the publication of this note.

No. 1047. Male. Greensboro. April 23, 1893. W. C. Avery.

176. *DENDROICA FUSCA* (Muller).
BLACKBURNIAN WARBLER.

The following specimen, the only one of the species taken by the Doctor, elicited no further note from him than the bare record in his catalogue.

No. 1054. Female. Greensboro. May 3, 1893. W. C. Avery.

177. *DENDROICA DOMINICA DOMINICA* (Linnaeus).
YELLOW-THROATED WARBLER.

It is interesting to know that specimen No. 1 of Dr. Avery's second series was an adult male of this species taken July 6, 1886, near Greensboro. He writes in his catalogue:

"This bird is quite common in this locality, though captured by me today for the first time. I saw several other individuals at the time of shooting this specimen. They were flitting about in the pine tree with some pine warblers. The yellow-throated warbler must breed here though I have never found the nest."

On the reverse side of label No. 1 was written: "Contents of stomach small beetles and Lepidoptera."

A specimen taken June 25, 1888, was presented to Dr. A. K. Fisher of Washington, D. C.

"Common. Summer resident. Breeds. A nest of this warbler was found by me last spring on May 4. The nest was in a sweet gum tree (*Liquidambar styraciflua*), thirty-five feet from the ground, and was entirely concealed in a bunch of gray moss (*Tillandsia usneoides*). The old bird was seen feeding her young, three in number. The nest contained, besides the young birds, one addled egg." (1891c).

Though the foregoing is the only note on the yellow-throated warbler published by the Doctor, he afterwards recorded rather extended observations on the nesting of the species. These original notes follow:

"April 2, 1893. No. 1. Asbury McShan found a yellow-throated warbler building in a sweet gum tree not far from the Greensboro station, and just over the path, in a pendant bunch of gray moss about forty-five feet from the ground. She could be plainly seen with a field glass through the moss whenever she brought material to the nest.

"On the third and fourth she was occupied morning and evening at her work. At six o'clock she was working on the third; and later still she could be seen 'till almost night at her labor.

"The male was heard singing some distance from the scene of his mate's constant occupation, for many hours; and he seemed quite indifferent to what she was doing, though perhaps she listened to his song attentively, and found relief in the sweet music of her charmer.

"She flew generally to the limb from which the moss hung and ran down till she reached the bunch when she fluttered like a butterfly before the opening on the side of the moss and then vanished in the waving epiphyte, soon to emerge and to dart so swiftly forth that the eye could scarcely follow her as she wound her aerial journey now through the tree tops, and now suddenly descending and skimming along the ground to seek rootlets or straw or vegetable down for her cosy nest. I saw her once tear the lining from an old nest of last year—a brown thrasher's I believe.

"What instinct compels these birds thus to conceal their nests in this pendent moss? Is it the inherited memory of hundreds of ancestors that have built in vain upon the bare branches till they have sought concealment and safety in their rocking cradles upon the tallest trees? Has the cunning serpent or the jay robbed them of their treasures till the instinct of concealment is common to these denizens of the lofty forest trees?

"April 4, 1893. No. 2. Asbury found a nest of *D. dominica* this afternoon. It is in a bunch of *Tillandsia*

usnecides ('gray moss'), suspended from a bough of the water oak (*Quercus aquatica*). This nest is about fifteen feet from the ground. The male was heard singing about a hundred yards from the tree in which his mate had begun nidification. After some search for his quiet partner, she was found on a sweet gum (*Liquidambar styraciflua*). She flew from this into a water oak. There also was another bird. I turned my field glass upon both; the identity of the yellow-throated warbler was positive. Asbury was enjoined to watch her, while the other bird was examined and found to be *V. flavifrons*. While this bird was examined by me, Asbury whispered to me, as he sank on his knees to the ground, 'Sit down, Doctor.' I did so, and at the same time the yellow-throated warbler was seen flitting about a streamer of gray moss. She lingered a few seconds around it, entered it, emerged suddenly, and flew away. She soon returned, however, with a straw in her mouth. Again she entered the moss, again quickly came forth, but this time she was gone ten minutes, or more perhaps. While we were thinking of approaching the moss to examine closely the site of her secret, she returned and disappeared, with the material gathered, by the opening which she had before entered. There could be no doubt as to what she was doing. Another and another time she came and went, and the field glass revealed the outline of the nest and the movements of the busy builder could be seen within, as she moulded the material and wove it into her swinging domicile.

"The male was nowhere to be seen or heard though not long before he was making the woods ring with his cheerful notes. This song is louder and far more musical than that of the pine warbler, in fact the efforts of the latter cannot be called music.

"The yellow-throated warbler is a summer resident of Hale County. He arrives from his winter home from the first to the twelfth of March. The latter date was that of the first song of this bird heard by me this season. It seems now—the 4th of April—to be building, as the observations made by me this spring lead me to believe.

"It seems to be from three weeks to a month later at nidification than the pine warbler, a resident.

"April 10, 1893. No. 3. Late this afternoon, as the sun was setting, quite a number of yellow-throated warblers were seen in some pines near a 'branch' on the edge of a field. I have never before seen so many individuals of this species together. They were watched closely and one of them was seen flying to a bunch of moss on a sweet gum tree (*Liquidambar*). She soon darted out from the moss, and swift as an arrow, glided along the ground into the field. Returning to the same limb on the gum tree, she could be seen on her almost completed nest, partially concealed by the moss but much more easily detected than Nos. 1 and 2 of the same species, already recorded. The nest lay on the limb, the moss forming a canopy above it, but not hiding it from the eye as the bird turned herself around in her cup-shaped fabric, spending several minutes in giving the final touches to her work—for she seemed to be lining it.

"April 18. This morning in attempting to take the nest of *D. dominica* about fifty feet from the ground, recorded above as No. 1, Asbury broke the eggs. About twelve days had elapsed from the completion of the nest when the attempt was made to take it. The broken shells disclosed small embryos.

"The nest was built on a limb in the moss and was almost completely concealed. The outside material of the nest is strips of bark and a light colored or grayish substance resembling spider webs. Inside of this are fine straws interwoven, the whole lined with cow hair and a few horse hairs, and feathers of the robin (*Merula migratoria*).

"External width of nest 2.70 inches; internal width 1.50 inches; external depth 3.00 inches; internal depth 1.50 inches. The nest appears large for the size of the bird.

"No. 2. The nest of Asbury's finding in the water oak was cut down today and though it was probably completed by the 9th, not an egg was yet laid. Supposing it was completed on or before the 9th at least ten or eleven days

have elapsed since it was finished. As a rule not less than eighteen days should be allowed from the time the nest is done till it is taken.

"April 18, 1893. No. 4. The nest in the pine tree proved to have a set of five eggs slightly incubated. It was built on a pine limb, and so concealed as to be found only by seeing the old bird take the nest. This was twenty-five feet from the ground and seven and a half feet from the axis of the tree.

"External width of nest 2.90 inches; internal width 1.65 inches; external depth 3.00 inches; internal depth 1.70 inches. Material: strips of bark and straw on the outside, attached to the limb of the pine by a substance resembling spider web and giving the nest a grayish appearance externally; inside of nest lined with hairs, apparently of the cow, and with feathers.

"April 20, 1893. No. 5. A yellow-throated warbler was discovered building her nest this afternoon in a sweet gum. The nest is completely concealed in a bunch of moss and is at least fifty-five or sixty feet from the ground, and on the end of a limb. The male and female were observed feeding together; they visited several bunches of moss; at last they both flew high up to a moss covered branch and disappeared in the moss; the male then left his companion, and she was observed many times to dart to the earth and return to the bunch of moss. It was evident after she had many times flown to and from the moss that she was building.

"April 24, 1893. No. 3. No. three's nest (*D. dominica*) was taken this afternoon. It contained four slightly incubated eggs. Nest was on the horizontal limb of a sweet gum, 26 ft. from the ground and 9 ft. from the body of the tree.

"The parent remained on the nest till she was shaken from it by the jarring of a pole on the limb. This nest was found on the evening of the 10th; it was taken on the 24th, just fourteen days from the time it was first discovered. The bird was last seen building on the 12th; she was then lining the nest, as I saw her carrying a large feather in her bill.

"April 25, 1893. No. 5 was seen building to-day, the fifth day since she was discovered carrying material for a nest.

"April 27, 1893. No. 6 (*D. dominica*). Another nest of the yellow-throated warbler was found this morning. She was seen entering a bunch of moss, and the nest was thus located. Pellets of silk of cocoons and the web or tents of certain larvæ were gathered; the bird returning every five or ten minutes with a wad of something white in her mouth. She was found gathering this white substance from under the bark of pine trees. She pecked from a small hole in the side of a pine as much of this white substance as she could hold in her bill at one time, and made a second visit to the same spot from which she extracted as much building material a second time. She was constructing her nest in the morning at 9 o'clock, and on returning four hours after I found her still busily employed.

"No. 7. At Millwood a nest of *D. dominica* was found on May 6th. The nest was on a limb ninety feet from the ground, and three feet from the axis of the tree. Three pairs of yellow-throated warblers were seen, and a young one just out of the nest.

"May 8, 1893 Nest No. 5 was examined today by Asbury and found empty, although eighteen days had elapsed since the bird was seen building. This was in a bunch of *Tillandsia* about fifty feet from the ground, and four feet from the trunk of the tree.

"May 8, 1893. No. 6 was also examined by Asbury and found to have the old bird apparently sitting. This nest was building on the 27th; only eleven days have passed since *D. dominica* No. 6 was found.

"May 10, 1893. No. 6 was taken this morning; bird seen building on the 27th of April; set complete. Bird was allowed in this case thirteen days to build nest and lay her set of eggs. This nest was concealed in bunch of *Tillandsia usneoides*, thirty-five feet from the ground and eleven feet from trunk of tree. The nest was supported not only by the gray moss but also by the end of the limb upon which grew the moss. It was very neatly and compactly built.

"May 14, 1893. Took nest No. 5 this morning; it contained bits of egg shells. The nest was found building on the 20th of April and examined on the 8th of May—eighteen days from the first day the bird was seen building. The eggs must have been destroyed by a jay or in some unaccountable way, for they could hardly have hatched and the young have left the nest in less than three weeks.

- No. 142. Female. Greensboro. May 20, 1889. W. C. Avery.
- No. 430. Male. Greensboro. Mar. 26, 1890. W. C. Avery.
- No. 870. Sex (?). Anniston. June 28, 1891. W. C. Avery.
- No. 1059. Female. Greensboro. May 6, 1893. W. C. Avery.
- No. 1062. Male. Greensboro. Sept. 4, 1893. W. C. Avery.

178. DENDROICA VIRENS (Gmelin).
BLACK-THROATED GREEN WARBLER.

"Not common. Spring and autumn migrant. Arrives later than any warbler, except the myrtle and palm warblers in the fall. First seen this fall, October 16, last met with October 24. On October 23, a cold day, I observed, in the town of Greensboro, four of these warblers busily searching the leaves of a shade tree for insects. They were so gentle that one might stand with his face within two or three feet of them, as they hopped about on the lowest branches of the tree just over the edge of the sidewalk." (1891c).

- No. 497. Male. Greensboro. May 4, 1890. W. C. Avery.
- No. 498. (?) Female. Greensboro. May 4, 1890. W. C. Avery.
- No. 499. Female. Greensboro. May 4, 1890. W. C. Avery.
- No. 1072. Sex (?). Greensboro. Sept. 27, 1893. W. C. Avery.
- No. 1078. Female. Greensboro. Oct. 8, 1893. W. C. Avery.
- No. 1083 (?). Male. Greensboro. Oct. 10, 1893. W. C. Avery.
- No. 1084. Male. Greensboro. Oct. 10, 1893. W. C. Avery.
- No. 1085. Female. Greensboro. Oct. 10, 1893. W. C. Avery.
- No. 1093. Female. Greensboro. Oct. 18, 1893. W. C. Avery.

179. DENDROICA VIGORSI (Audubon).
PINE WARBLER.

"Abundant. Resident. Breeds." (1891c).

The first recorded capture of this bird was on Jan. 10, 1878, when specimen No. 39 (old series) was collected at Greensboro. Mar. 18, 1888, Dr. Avery "found for the first time nest of *D. pinus*, on a horizontal limb of a

pine about fifteen feet from the ground; saw female pine creeper fly into the tree with material for her nest."

April 1, 1888, a set of three eggs was collected, near Greensboro, from a nest on a horizontal limb of a pine, twenty feet from the ground.

April 29, 1891, the Doctor observed a pine warbler feeding its young.

The following nesting notes are taken from the Doctor's original journal:

"March 24, 1893. Took a nest of a pine warbler, on the horizontal branch of a pine tree (*pinus mitis*) at 9 feet 10 inches from the axis of the tree, and 13 feet 4½ inches from the ground. The bird was discovered building her nest on the 9th of March. It was completed about the 12th. The last egg was laid on the 24th. The nest was attached to and in the fork of a horizontal branch. It was built of pine needles and strips of bark, and lined with feathers and hair. This bird had built her nest by the 12th; she was seen building it for three or four days. She began nidification on the 8th (or about that time) and the nest was finished in about four days.

"To-day, the 4th of April (1893), while making observations on the yellow-throated warbler whose nest was found on the 2nd, and also preparing to have Asbury climb a pine to take a nest of *D. pinus*, both parents appeared on the scene; one, the male I believe, with a worm, which he could be seen distinctly serving to his nestlings. It seems to me that this nest must have been built the first week in March for the young to have been hatched as early as the fourth of April. Of course operations for taking the nest were suspended; ladder and rope and saw were carried home. This nest of '*pinus*' is thirty feet from the ground and fifteen feet from the body of the tree, on a horizontal branch. The sites of the other two pine warblers' nests found this season are similar to that of the one just described. They are, judging from the eye, respectively fifteen and twenty-five feet from the ground."

Pine warblers were recorded as common near Perdido, Sept. 26, 1892.

- No. 8. Male. Greensboro. Sept. 8, 1886. W. C. Avery.
 No. 293. Male. Greensboro. Dec. 9, 1886. W. C. Avery.
 No. Male im. Greensboro. Nov. 29, 1889. W. C. Avery.
 No. 329. Male. Greensboro. Dec. 23, 1889. W. C. Avery.
 No. 733. (?). Male. Greensboro. Mar. 25, 1890. W. C. Avery.
 No. 588. Male. Greensboro. Aug. 19, 1890. W. C. Avery.
 No. 784. Male. Greensboro. Oct. 23, 1890. W. C. Avery.
 No. 802. Male. Greensboro. Nov. 1, 1890. W. C. Avery.
 No. 983 (?). Female. Greensboro. Aug. 17, 1890. W. C. Avery.
 No. 787 (?). Male. Greensboro. Oct. 2, 1893. W. C. Avery.

180. DENDROICA PALMARUM PALMARUM (Gmelin).
 PALM WARBLER.

"Common. Spring migrant. A few have been observed in the fall of previous years; none seen this fall. First met with last year in the spring migration, on April 6, last on May 6." (1891c).

April 23, 1887, recording two specimens of this warbler. Dr. Avery writes: "First of the species I have ever collected. Shot three in Millwood swamp on edge of pond. The first one shot—by a singular coincidence—fell within an inch of a large moccasin, which might have collected me had I not seen him sooner. As it was I collected him and the bird also."

- No. 448. Male. Greensboro. Apr. 12, 1890. W. C. Avery.
 No. 463. Male. Greensboro. Apr. 18, 1890. W. C. Avery.
 No. 468. Female. Greensboro. Apr. 21, 1890. W. C. Avery.
 No. 469. Male. Greensboro. Apr. 21, 1890. W. C. Avery.
 No. 470. Female. Greensboro. Apr. 21, 1890. W. C. Avery.
 No. 484. Female. Greensboro. Apr. 27, 1890. W. C. Avery.
 No. 485. Female. Greensboro. Apr. 27, 1890. W. C. Avery.
 No. 486. Female. Greensboro. Apr. 28, 1890. W. C. Avery.
 No. 487. Female. Greensboro. Apr. 28, 1890. W. C. Avery.
 No. 493. Female. Greensboro. Apr. 30, 1890. W. C. Avery.
 No. 494. Female. Greensboro. Apr. 30, 1890. W. C. Avery.
 No. 495. Female. Greensboro. Apr. 30, 1890. W. C. Avery.
 No. 503. Female. Greensboro. May 6, 1890. W. C. Avery.
 No. 1062. Male. Greensboro. Sept. 15, 1893. W. C. Avery.
 No. 1095. Female. Greensboro. Oct. 25, 1893. W. C. Avery.

181. DENDROICA PALMARUM HYPOCHRYSEA (Ridgway).
 YELLOW PALM WARBLER.

"Only one specimen of this form has come under my observation, and that occurred April 21 last; the usual form here is typical *palmarum*, or a form intermediate between this one and *Dendroica palmarum*." (1891c).

All three of the specimens taken on April 21, 1890, are referable to subspecies *palmarum*, but it is quite probable that both forms occur during migrations in Hale County.

182. DENDROICA DISCOLOR (Vieillot).
PRAIRIE WARBLER.

"Common. Summer resident. Breeds." (1891c).

May 1, 1889, Dr. Avery shot an incubating female to properly identify a nest with eggs. A month later he writes: "Found five nests of the prairie warbler on the 1st of June; all empty but one which had two eggs in it. These nests were all in young sweet gums and from about two or three to six feet from the ground."

- No. 444. Male. Greensboro. April 6, 1890. W. C. Avery.
- No. 450. Male. Greensboro. April 12, 1890. W. C. Avery.
- No. 464. Sex (?). Greensboro. Apr. 18, 1890. W. C. Avery.
- No. 598. Male. Greensboro. Aug. 22, 1890. W. C. Avery.
- No. 615. Female. Greensboro. Aug. 25, 1890. W. C. Avery.
- No. 888. Male. Greensboro. Aug. 11, 1891. W. C. Avery.
- No. 894. Male. Greensboro. Aug. 15, 1891. W. C. Avery.

183. SEIURUS AUROCAPILLUS (Linnæus).
OVEN-BIRD.

"Met with during autumn migration. Not common." (1891c).

"The 11th of October (1890) was the first day that I had met with the oven-bird (*S. aurocapillus*) with the exception of two specimens previously collected by me. This bird has the same mode of locomotion as the tit-larks: *walking* instead of *hopping*. It was curious to see it progressing as it did—lighting on the ground and running off like a partridge. The oven-birds were met with on the live oak ridge running east to the Cypress Slough." (Original notes).

- No. 43. No data.
- No. 338. No data.
- No. 589. Female. Greensboro. Aug. 21, 1890. W. C. Avery.
- No. 672. Female. Greensboro. Sept. 16, 1890. W. C. Avery.
- No. 744. Female. Greensboro. Oct. 11, 1890. W. C. Avery.
- No. 745. Female. Greensboro. Oct. 11, 1890. W. C. Avery.
- No. 746. Male. Greensboro. Oct. 11, 1890. W. C. Avery.
- No. 763. Male. Greensboro. Oct. 18, 1890. W. C. Avery.
- No. 770. Male. Greensboro. Oct. 19, 1890. W. C. Avery.

184. SEIURUS NOVEBORACENSIS NOVEBORACENSIS
(Gmelin).
WATER-THRUSH.

"Observed in autumn migration. Rare." (1891c).

No. 688. Male. Greensboro. Sept. 19, 1890. W. C. Avery.

185. SEIURUS NOVEBORACENSIS NOTABILIS (Ridgway).
GRINNELL'S WATER-THRUSH.

The two Hale County specimens listed below are referable to this form.

No. 991. Male. Greensboro. Sept. 3, 1892. W. C. Avery.

No. 1061. Female. Greensboro. Aug. 25, 1893. W. C. Avery.

186. SEIURUS MOTACILLA (Vieillot).
LOUISIANA WATER-THRUSH.

"Rare. A specimen in my collection was taken on June 30; another captured in April gave evidence that the bird was breeding. That taken in June being well within the breeding season, cannot be considered a migrant, while the functional activity of the ovary of the latter example proved that it was a breeding female." (1891c).

No. 44 (?). Female. Greensboro. No other data.

187. OPORORNIS FORMOSUS (Wilson).
KENTUCKY WARBLER.

"Common. Summer resident. Breeds." (1891c).

"April 10, 1893. The Kentucky warbler was heard singing yesterday and again today. His monotonous 'Tweedle! Tweedle! Tweedle!' proclaim his arrival and also his intention of rearing a family at some early period. This warbler is common in Hale County but his retired habits make it not an easy task to study his manner of nidification. He is very shy, affecting the dense cover and undergrowth bordering some stream of water, and rarely leaving the ground to fly into the trees 'till he is either seeking a mate or wishes to exhibit to his admiring companion that he is what his name indicates: Formosa or beautiful. Then his 'Tweedle! Tweedle! Tweedle!' resounds overhead, as he flies from tree to tree. He returns from winter quarters about the first week in April

and departs for the tropics, I believe, before the first of October.

"On June 4th, 1889, I took a nest of *formosa* on a shady, steep hillside, at the foot of a small sassafras (*S. officinale*). The set contained four eggs; incubation slight.

"My latest record of *G. formosa* is September the 12th; my observations lead me to believe that it does not tarry long after this date." (Original notes).

No. 547. Female-hornot. Greensboro. July 21, 1890. W. C. Avery.

No. 613. Male. Greensboro. Aug. 25, 1890. W. C. Avery.

188. GEOTHYLPIS TRICHAS IGNOTA (Chapman).
FLORIDA YELLOW-THROAT.

The first mention of this species is the record of a male taken June 17, 1876, at Greensboro, whose "stomach contained debris of insects." The following was appended: "This little bird seems to abound in the thickets about marshes and streams. Its song is so similar to that of the house wren (*Troglodytes aedon*, the singing troglodyte) that it requires a practised ear to distinguish between them." Another bit of evidence that the Doctor was young at the work in '76.

A couple of early records are Feb. 15, 1887, when the Doctor heard the notes of a yellow-throat, and Mar. 20th, when an adult male was seen. A female was taken on Mar. 11, 1890.

May 24, 1888, a set of three eggs was collected near Greensboro. "Incubation of three or four days. Nest was concealed on a blackberry vine, and supported about three or four inches from the ground, in thick briars and weeds."

In April, 1891, the Doctor writes in his journal: "Nest of *Geothlypis trichas* was found on the 23rd; it contained only one egg; an egg was laid every day till the set (four) was produced. Nest on the ground near a bunch of broom grass (*Andropogon virginica*)."

"Common. Summer resident. Breeds." (1891c).

No. 406. Female. Greensboro. Mar. 11, 1890. W. C. Avery.

No. 657. Male. Greensboro. Sept. 6, 1890. W. C. Avery.

No. 921. Male im. Greensboro. Sept. 10, 1891. W. C. Avery.
No. 1043. Male. Greensboro. Apr. 15, 1893. W. C. Avery.

189. ICTERIA VIRENS VIRENS (Linnaeus).
YELLOW-BREASTED CHAT.

No. 3 (old series) of Dr. Avery's collection was an adult male of this species taken May 27, 1876, near Contentment, $11\frac{1}{2}$ miles southwest of Greensboro. The stomach contained blackberry seed and debris of insects. After recording the specimen he writes: "This bird is a summer visitant, appearing in April and disappearing with cool weather in the fall.

"He is a noisy bird; generally found in cool, low, marshy places, where sometimes leaving his dark haunts, he perches upon a tall tree and utters a succession of strange notes such as 'baw-tate-tate-tate-chuck' and then a whistle. These are but a few of the strange sounds with which he enlivens his shady haunts.

"He doubtless breeds here, though I have never seen his nest nor found his young."

Writing in 1888, the Doctor says: "I was waked from profound sleep by the fluttering of a bird in my room on the morning of April 21 at three o'clock. I lighted my lamp and caught the bewildered bird, No. 55 of my collection." The stomach of this specimen contained insects.

May 21, 1888, a set of four eggs was taken near Greensboro. "Incubation advanced. Nest in plum tree (*Prunus chicasa Michx.*), two feet from the ground. Measurements of eggs: No. 1, .85 by .67; No. 2, .81 by .66; No. 3, .82 by .65; No. 4, .80 by .67; average .82 by .67. Sent to Capt. Charles Bendire."

"Common. Summer resident. Breeds." (1891c).

The chat was taken by Dr. Avery near the mouth of Perdido Bay on his visit to Baldwin County, Sept. 16th to October 2nd, 1892.

No. 55. Male. Greensboro. Apr. 21. 1888. W. C. Avery.
No. 602. Male. Greensboro. Aug. 23, 1890. W. C. Avery.
No. 1039. Male. Greensboro. Apr. 8, 1893. W. C. Avery.

190. *WILSONIA CITRINA* (Boddaert).
HOODED WARBLER.

"Common. Observed during spring and autumn migration. One specimen was taken on June 30 at Millwood, on the Warrior River. It may be inferred from this fact that this warbler breeds in Hale County." (1891c).

One specimen of this species was taken on September 17th, 1892, on Bear Point, Baldwin County.

- No. 557. Female. Greensboro. Aug. 11, 1890. W. C. Avery.
- No. 563. Male. Greensboro. Aug. 12, 1890. W. C. Avery.
- No. 624. Male. Greensboro. Aug. 30, 1890. W. C. Avery.
- No. 626. Female. Greensboro. Aug. 30, 1890. W. C. Avery.
- No. 627. Female. Greensboro. Aug. 30, 1890. W. C. Avery.
- No. 902. Male. Greensboro. Aug. 25, 1891. W. C. Avery.
- No. 1000 (?). Male. Greensboro. May 6, 1893. W. C. Avery.
- No. 1041. Female. Greensboro. Apr. 15, 1893. W. C. Avery.
- No. 1074. Male. Greensboro. Sept. 30, 1893. W. C. Avery.

191. *WILSONIA CANADENSIS*. (Linnæus).
CANADA WARBLER.

"One specimen only taken on August 29 last." (1891c).

- No. 618. Male. Greensboro. Aug. 29, 1890. W. C. Avery.

192. *SETOPHAGA RUTICILLA* (Linnæus).
REDSTART.

"Abundant in the river bottom. Summer resident. Breeds. (1891c))

- No. 683. Male. Greensboro. Sept. 17, 1890. W. C. Avery.
- No. 708. Female. Greensboro. Sept. 26, 1890. W. C. Avery.
- No. 737. Male. Greensboro. Oct. 7, 1890. W. C. Avery.

193. *ANTHUS RUBESCENS* (Tunstall).
PIPIT.

"Common. Winter resident." (1891c).

- No. 341. Male. Greensboro. Jan. 4, 1890. W. C. Avery.

194. *MIMUS POLYGLOTTOS POLYGLOTTOS* (Linnæus).
MOCKINGBIRD.

"Abundant. Resident. Breeds. Much has been said about the difference in excellence of the song of this bird. The mature old males sing best; while it requires perhaps two or three seasons for the younger males to attain the full development of their vocal powers.

One has but to hear the feeble efforts at song of the young males of the first season to perceive the difference. Several years ago there was an adult male, however, that made the most discordant sounds; his song, if that can be called song, which was a repetition for hours at a time of the same monotonous noise, such as 'chay! chay! chay! chay!' prolonged indefinitely in the same key, was the only music he ever produced. I often asked myself: 'Is that bird an idiot, or is his musical apparatus defective?' (1891c).

A set of four eggs of the mocking-bird was taken from a hawthorn, about three feet from the ground, near Greensboro, April 25, 1888. The eggs measured: .91 by .72, .89 by .71, .94 by .70, and .95 by .71.

Young mockingbirds one-third grown were recorded on the 28th of April, 1891, in the Doctor's journal.

Among the Doctor's Baldwin County notes, Sept. 16th to Oct. 2nd, 1892, is the following: "Mockingbirds were abundant; there were many seen; near Pensacola, in fact in the incorporated limits of the town, hundreds were seen feeding on pokeberries."

It is an interesting fact that the label of the unnumbered specimen cited below bears this note: "Collected by *C. hudsonius*."

- No. Male. juv. Greensboro. Sept. 17, 1889. W. C. Avery.
- No. 315. Male. Greensboro. Dec. 13, 1889. W. C. Avery.
- No. 320. Male. Greensboro. Dec. 20, 1889. W. C. Avery.
- No. 528. Female. Greensboro. June 2, 1890. W. C. Avery.
- No. 1086. Male. Greensboro. Oct. 10, 1893. W. C. Avery.
- No. 1110. Female. Greensboro. Dec. 30, 1893. W. C. Avery.
- No. 1111. Male. Greensboro. Mar. 5, 1894. W. C. Avery.

The last named specimen was the last bird collected by Dr. Avery. It is significant of his activity as an ornithologist that this specimen was taken just six days before his death.

195. DUMETELLA CAROLINENSIS (Linnaeus).
CATBIRD.

This species is entirely omitted from Dr. Avery's list, "Birds Observed in Alabama," though a number of specimens fell to his gun. Besides his Hale County records.

he noted that catbirds were abundant in Baldwin County, Sept. 16th to Oct. 2, 1892.

- No. 21. Male. Greensboro. May 18, 1887. W. C. Avery.
 No. 283. No data.
 No. 294. No data.
 No. 664. Male. Greensboro. Sept. 9, 1890. W. C. Avery.
 No. 1075. Female. Greensboro. Oct. 3, 1893. W. C. Avery.

196. *TOXOSTOMA RUFUM* (Linnaeus).
 BROWN THRASHER.

"Common. Resident. Breeds." (1891c).

The Baldwin County notes for Sept. 16th to Oct. 2, 1892, include the following: "Brown thrashers were seen near the lagoon on the Gulf Coast on Sept. 26th."

- No. 525. Male. Greensboro. May 31, 1890. W. C. Avery.
 No. 553. Male-hornot. Greensboro. July 28, 1890. W. C. Avery.
 No. 673. Female. Greensboro. Sept. 16, 1890. W. C. Avery.
 No. 833. Male. Greensboro. May 4, 1891. W. C. Avery.
 No. 1100. Male. Greensboro. Oct. 26, 1893. W. C. Avery.
 No. 1101. Male. Greensboro. Oct. 26, 1893. W. C. Avery.

197. *THRYOTHORUS LUDOVICIANUS LUDOVICIANUS*
 (Latham).
 CAROLINA WREN.

"Abundant. Resident. Breeds." (1891c).

Under date of June 3, 1876, Dr. Avery enters specimen No. 5, an adult male of this species, in his journal, and writes:

"A common bird in Alabama, where he is found during the whole year. His song is not varied, but loud and musical. When a rain has refreshed the parched earth, and the sunshine plays upon the green trees and herbage, his song may often be heard, as if he too rejoiced with all nature."

The stomach of a specimen taken June 1, 1889, contained a "chinch bug and other insects."

The Carolina wren was recorded as common in Baldwin County, Sept. 16th to Oct. 2, 1892.

- No. 158. Female. Greensboro. June 1, 1889. W. C. Avery.
 No. 286. Female. Greensboro. Nov. 25, 1889. W. C. Avery.
 No. 322. Male. Greensboro. Dec. 20, 1889. W. C. Avery.
 No. 757. Male. Greensboro. Oct. 16, 1890. W. C. Avery.

- No. 883. Male. Anniston. July 8, 1891. W. C. Avery.
No. 884. Female. Anniston. July 8, 1891. W. C. Avery.

198. THRYOMANES BEWICKI BEWICKI (Audubon).
BEWICK'S WREN.

"Not common. Winter resident." (1891c).

The earliest fall arrival of the species recorded is Sept. 17, 1891.

- No. 243. Male. Greensboro. Oct. 12, 1889. W. C. Avery.
No. 282. Female. Greensboro. Nov. 30, 1889. W. C. Avery.
No. 338. Male. Greensboro. Jan. 3, 1890. W. C. Avery.
No. 791. Female. Greensboro. Oct. 25, 1890. W. C. Avery.
No. 794. Male. Greensboro. Oct. 25, 1890. W. C. Avery.
No. 1068. Male. Greensboro. Sept. 21, 1893. W. C. Avery.
No. 1080. Male. Greensboro. Oct. 9, 1893. W. C. Avery.
No. 1081. Male. Greensboro. Oct. 9, 1893. W. C. Avery.
No. 1088. Female. Greensboro. Oct. 14, 1893. W. C. Avery.
No. 1091. Male. Greensboro. Oct. 16, 1893. W. C. Avery.
No. 1103. Female. Greensboro. Oct. 27, 1893. W. C. Avery.

199. TROGLODYTES AEDON AEDON (Vieillot).
HOUSE WREN.

Under date of Sept. 8, 1886, Dr. Avery records a house wren, but this record is rather doubtful because he omitted it from his "Birds Observed in Alabama." Again, April 6, 1893, he notes in his journal: "A very small wren was seen in a rose hedge. It was not the winter wren nor Carolina nor Bewicks' hence it must have been *Troglodytes aedon*." However, in 1893, a specimen was taken at Greensboro and is still in the collection.

- No. 1022. Male. Greensboro. 1893. W. C. Avery.

200. CETHIA FAMILIARIS AMERICANA (Bonaparte).
BROWN CREEPER.

"Not common. Winter resident." (1891c).

- No. 308. Male. Greensboro. Dec. 11, 1889. W. C. Avery.
No. 343. Male. Greensboro. Jan. 4, 1890. W. C. Avery.
No. 775. Female. Greensboro. Oct. 21, 1890. W. C. Avery.

201. SITTA CAROLINENSIS ATKINSI (Scott).
FLORIDA WHITE-BREASTED NUTHATCH.

"Not common. Resident. Breeds." (1891c).

- No. 418. Male. Greensboro. Mar. 15, 1890. W. C. Avery.
No. 890. Male. Greensboro. Aug. 11, 1890. W. C. Avery.

202. *SITTA CANADENSIS* (Linnaeus).
RED-BREASTED NUTHATCH.

"Migrant. In my collection is one example taken October 4, 1888, the only one I have ever met with." (1891c).

The red-breasted nuthatch is not a regular migrant in Alabama, but should more properly be classed as a straggler.

No. 93. Male (adult) Greensboro. Oct. 4, 1888. W. C. Avery.

203. *SITTA PUSILLA* (Latham).
BROWN-HEADED NUTHATCH.

"Common. Resident. Breeds." (1891c).

May 1, 1888, a set of five eggs was taken two miles west of Greensboro. "Nest was in a post, about five feet from the ground. The parent when exposed by having the excavation, in which she was sitting, laid open to the bottom, did not move 'till the hand was extended to take her from the nest. The entrance to the nest was a circular hole about two inches in diameter; the cavity being about ten inches deep and three or four inches wide, the hole at the bottom being extended laterally and excavated so as to receive the nest. This was of cotton and hair, lined with the samaræ of maple or ash." Eggs measured: .59 by .45, .56 by .45, .56 x .44, .58 by .47, and .56 by .45.

May 2, 1888, a set of four eggs was taken near the same locality. Incubation just begun. "Nest was about four feet from the ground in a dead pine stump; bird sat on nest till I broke away outside shell and exposed her to view." Eggs measured: .62 by .48, .60 by .48, .65 by .47, and .63 by .47.

The Doctor records seeing brown-headed nuthatches in Baldwin County, Oct. 2, 1892.

- No. 222. Male. Greensboro. Sept. 22, 1889. W. C. Avery.
No. 423. Male. Greensboro. Mar. 15, 1890. W. C. Avery.
No. 424. Female. Greensboro. Mar. 15, 1890. W. C. Avery.
No. 641. Female. Greensboro. Sept. 4, 1890. W. C. Avery.
No. 885. Male. Anniston. July 1, 1891. W. C. Avery.
No. 965. Male. Greensboro. Dec. 23, 1891. W. C. Avery.

204. *BÆOLOPHUS BICOLOR* (Linnæus).
TUFTED TITMOUSE.

"Common. Resident. Breeds." (1891c).

Several recorded in Baldwin County, Sept. 16th to Oct. 2, 1892.

- No. 342. Female. Greensboro. Jan. 4, 1890. W. C. Avery.
No. 419. Male. Greensboro. Mar. 15, 1890. W. C. Avery.
No. 778. Male. Greensboro. Oct. 21, 1890. W. C. Avery.

205. *PENTHESTES CAROLINENSIS CAROLINENSIS*
(Audubon).
CAROLINA CHICKADEE.

"Common. Resident. Breeds." (1891c).

Recorded in Baldwin County, Sept. 30, 1892.

- No. 277. Female. Greensboro. Nov. 23, 1889. W. C. Avery.
No. 300. Female. Greensboro. Dec. 9, 1889. W. C. Avery.
No. 302. Male. Greensboro. Dec. 10, 1889. W. C. Avery.
No. 426. Male. Greensboro. Mar. 15, 1890. W. C. Avery.

206. *REGULUS SATRAPA SATRAPA* (Lichtenstein).
GOLDEN-CROWNED KINGLET.

"Common. Winter resident." (1891c).

- No. 264. Male. Greensboro. Nov. 9, 1889. W. C. Avery.
No. 336. Female. Greensboro. Jan. 3, 1890. W. C. Avery.
No. 429. Sex (?). Mar. 20, 1890. W. C. Avery.
No. 799. Female. Greensboro. Oct. 27, 1890. W. C. Avery.
No. Odd specimen—No data.
No. Odd specimen—No data.

207. *REGULUS CALENDULA CALENDULA* (Linnæus).
RUBY-CROWNED KINGLET.

"Common. Winter resident." (1891c).

No. 816, cited below, was singing when shot. Unfortunately for Alabamians, however, the ruby-crown does not render its song in full volume while within the State. It is one of the most remarkable of North American songsters.

- No. 104. Male. Greensboro. Apr. 6, 1889. W. C. Avery.
No. 105. Female. Greensboro. Apr. 6, 1889. W. C. Avery.
No. 249. Male. Greensboro. Oct. 26, 1889. W. C. Avery.
No. 771. Female. Greensboro. Oct. 19, 1890. W. C. Avery.
No. 816. Male. Greensboro. Mar. 22, 1891. W. C. Avery.

208. POLIOPTILA CÆRULEA CÆRULEA (Linnæus).
BLUE-GRAY GNATCATCHER.

"Abundant. Summer resident. Breeds." (1891c).

The gnatcatcher was first recorded under date of June 3, 1876, when an adult male was taken at Greensboro. Part of the entry follows: "This bird is found in warm weather. The nest, like that of the hummingbird, is beautifully constructed, woven around and to the sides of the branches so as to appear like an excrescence."

The following interesting record of the Doctor's early struggle with ornithology is taken from his "Oological Register" under date of May 14, 1876: "This nest (gnatcatcher) is that of the smallest bird in this country except the hummingbird. When I was a boy there was a smaller bird than the builder of nest No. 3. It has disappeared. It exists in this region, at least, no more. It was so small that the smallest sparrow compared to it was large. My recollection of it is that it had a small yellow spot upon the occiput and was of a leaden color on the belly, while the back was of a greenish tinge. It has been many years since I saw it, perhaps twenty-five. It hopped about upon the trees and especially upon the small pines, examining minutely every leaf for its food. It was so gentle that I remember once when a boy that for want of another missile that I took my cap from my head and struck one dead from a bush."

It is quite patent that the gentle bird was a golden-crowned kinglet, but it is surprising that one whose observational powers were so keen as to fix a fairly accurate description in his mind for twenty-five years should so long overlook a common winter visitant.

May 4, 1888, a set of five eggs was collected eight miles south of Greensboro. The nest was in a sweet gum, fifteen feet from the ground. Three of the eggs were broken; the remaining two measured: .56 by .49 and .58 by .48.

April 4, 1893, while making observations on the nesting of the yellow-throated warbler Dr. Avery discovered another nest of the gnatcatcher. He writes: "The wheezy,

squeaking calls of two blue-gray gnatcatchers were heard in the water oak, and one of the birds flew to the ground and gathered material for a nest from the side of a decayed stump within ten feet of where we sat. A few minutes' search was rewarded by the discovery of the nest upon the horizontal branch of an elm not more than a hundred feet from the water oak. The beautiful, lichen covered cup was glued to the surface of the branch so tightly that no wind could move it, frail though it was, from the spot where the skillful architect had placed it."

The species was recorded on Perdido Bay, Sept. 16th to Oct. 2, 1892.

No. 231. Male. Greensboro. Mar. 26, 1890. W. C. Avery.
No. 567. Male. Greensboro. Aug. 12, 1890. W. C. Avery.

209. HYLOCICHLA MUSTELINA (Gmelin).

WOOD THRUSH.

"Swamp Sparrow"

"Common. Summer resident. Breeds." (1891c).

June 26, 1875, Dr. Avery wrote in French in his journal: "I found today the nest of a bird which is called in English 'swamp sparrow.' In the morning they (the two birds) began the nest and finished it in the afternoon of the same day: I did not think that it was possible that a bird could construct its nest so soon." (The wood thrush is commonly known to the people of certain rural sections of Alabama as "swamp sparrow").

April 26, 1888, a set of four eggs was taken at Greensboro; incubation just begun. The nest was in the top of a small shell-bark hickory, about ten feet from the ground. The eggs measured: 1.05 by .76, 1.03 by .74, 1.01 by .72, and .97 by .71. This set was sent to Capt. Charles Bendire.

No. 44. Male. Greensboro. Apr. 4, 1888. W. C. Avery.
No. 542. Male. Greensboro. July 16, 1890. W. C. Avery.
No. 711. Female. Greensboro. Sept. 29, 1890. W. C. Avery.
No. 712. Male. Greensboro. Sept. 29, 1890. W. C. Avery.
No. 717. Female. Greensboro. Sept. 30, 1890. W. C. Avery.
No. 875. Male. Anniston. July 3, 1891. W. C. Avery.
No. 937. Male. Greensboro. Sept. 25, 1891. W. C. Avery.

210. *HYLOCICHLA FUSCESCENS FUSCESCENS* (Stephens).
VEERY. WILSON'S THRUSH.

"My first record of this thrush for the autumn migration of last year is September 9, my last is September 25. Between these dates it was frequently seen, and though I was out, on an average, four days in the week till the first of November, no specimen was met with after September 25." (1891c).

A specimen was taken on Bear Point, Perdido Bay, Sept. 17, 1892.

- No. 636. Female. Greensboro. Sept. 3, 1890. W. C. Avery.
- No. 662. Male. Greensboro. Sept. 9, 1890. W. C. Avery.
- No. 667. Male. Greensboro. Sept. 11, 1890. W. C. Avery.
- No. 675. Male. Greensboro. Sept. 16, 1890. W. C. Avery.
- No. 680 (?). Greensboro. Sept. 15, 1890. W. C. Avery.
- No. 689. Male. Greensboro. Sept. 19, 1890. W. C. Avery.
- No. 694. Female. Greensboro. Sept. 22, 1890. W. C. Avery.
- No. 695. Male. Greensboro. Sept. 22, 1890. W. C. Avery.
- No. 700. Male. Greensboro. Sept. 23, 1890. W. C. Avery.
- No. 704. Female. Greensboro. Sept. 25, 1890. W. C. Avery.
- No. 905. Male. Greensboro. Aug. 26, 1891. W. C. Avery.
- No. 918. Male. Greensboro. Sept. 10, 1891. W. C. Avery.
- No. 929. Female. Greensboro. Sept. 23, 1891. W. C. Avery.

211. *HYLOCICHLA ALICIAE ALICIAE* (Baird).
GRAY-CHEEKED THRUSH.

Apparently the Doctor did not distinguish this, the typical subspecies, from Bicknell's thrush for two of the three specimens mentioned under the latter form in his "Birds Observed in Alabama" are really referable to *aliciae*.

- No. 703. Female. Greensboro. Sept. 25, 1890. W. C. Avery.
- No. 724. Male. Greensboro. Oct. 2, 1890. W. C. Avery.
- No. 725. Male. Greensboro. Oct. 2, 1890. W. C. Avery.
- No. 739. Female. Greensboro. Oct. 7, 1890. W. C. Avery.
- No. 762. Female. Greensboro. Oct. 17, 1890. W. C. Avery.
- No. 772. Male. Greensboro. Oct. 20, 1890. W. C. Avery.
- No. 916. Male. Greensboro. Sept. 10, 1891. W. C. Avery.
- No. 930. Female. Greensboro. Sept. 23, 1891. W. C. Avery.
- No. 931. Male. Greensboro. Sept. 23, 1891. W. C. Avery.
- No. 939. Female. Greensboro. Sept. 26, 1891. W. C. Avery.

212. *HYLOCICHLA ALICIAE BICKNELLI* (Ridgway).
BICKNELL'S THRUSH.

"One was taken on September 17. The next record is September 25, the last October 20. These thrushes were

frequently seen from the first to the twentieth of October, the date of my last record." (1891c).

- No. 687. Male. Greensboro. Sept. 17, 1890. W. C. Avery.
- No. 719. Female. Greensboro. Oct. 1, 1890. W. C. Avery.
- No. 928. Female. Greensboro. Sept. 19, 1891. W. C. Avery.
- No. 936. Female. Greensboro. Sept. 25, 1891. W. C. Avery.
- No. 1067. Female. Greensboro. Sept. 20, 1893. W. C. Avery.

213. *HYLOCICHLA USTULATA SWAINSONI* (Tschudi).
OLIVE-BACKED THRUSH.

"Was observed from the twentieth of September till the first week in October. This species with the two preceding fed mostly upon the berries of the Black Gum (*Nyssa multiflora*); and could be seen at all times of the day flying to and from these trees. The specimens obtained were so fat that it was with difficulty that a good skin could be made from them. How these birds could migrate for a thousand miles perhaps, and cross the sea, as some of them do, carrying so much dead weight, is difficult to imagine. And yet they do fly without trouble. It may be that this extra adipose material is a supply stored up for their journey, without which they might not accomplish it." (1891c).

- No. 223. Sex (?). Greensboro. Sept. 27, 1889. W. C. Avery.
- No. 686. Male. Greensboro. Sept. 17, 1890. W. C. Avery.
- No. 714. Female. Greensboro. Sept. 30, 1890. W. C. Avery.
- No. 716. Male. Greensboro. Sept. 30, 1890. W. C. Avery.
- No. 720. Male. Greensboro. Oct. 1, 1890. W. C. Avery.
- No. 721. Male. Greensboro. Oct. 1, 1890. W. C. Avery.
- No. 726. Female. Greensboro. Oct. 2, 1890. W. C. Avery.
- No. 750. Male. Greensboro. Oct. 13, 1890. W. C. Avery.
- No. 935. Female. Greensboro. Sept. 25, 1891. W. C. Avery.
- No. 938. Female. Greensboro. Sept. 26, 1891. W. C. Avery.
- No. 1056. Male. Greensboro. May 3, 1893. W. C. Avery.

214. *HYLOCICHLA GUTTATA PALLASI* (Cabanis).
HERMIT THRUSH.

"Not common. Winter resident. First arrival recorded this fall is on October 24." (1891c).

The stomachs of three specimens, taken Jan. 22, 1878, April 4, 1888, and April 5, 1888, respectively, contained beetles.

- No. 233. No data.
- No. 273. Female. Greensboro. Nov. 14, 1889. W. C. Avery.

No. 325.	Male.	Greensboro.	Dec. 21, 1889.	W. C. Avery.
No. 356.	Male.	Greensboro.	Jan. 25, 1890.	W. C. Avery.
No. 789.	Male.	Greensboro.	Oct. 24, 1890.	W. C. Avery.
No. 796.	Male.	Greensboro.	Oct. 25, 1890.	W. C. Avery.
No. 804.	Male.	Greensboro.	Nov. 5, 1890.	W. C. Avery.

215. *PLANESTICUS MIGRATORIUS ACHRUSTERUS*
(Batchelder).
SOUTHERN ROBIN.

"Common. Winter resident. First appeared in this locality this fall, on October 19. Two pairs of robins nested the past season in the yard of John L. Cobbs, state treasurer, in the city of Montgomery. The young were reared, and they remained with their parents in the yard of Mr. Cobbs all the summer and were still there in October, as was reported to me on inquiring. This is the first instance known to me of the robins nesting so far south. If these birds are not shot this winter, they may remain to breed again next year; and we may have the interesting spectacle of a colony of robins in a southern city." (1891c). This colony did not materialize, however, and the record remains unique.

No. 408.	Male.	Greensboro.	Mar. 11, 1890.	W. C. Avery.
No. 412.	Female.	Greensboro.	Mar. 13, 1890.	W. A. Cobbs.
No. 787.	Male.	Greensboro.	Oct. 23, 1890.	W. C. Avery.
No. 815.	Female.	Greensboro.	Mar. 20, 1891.	W. C. Avery.

216. *SIALIA SIALIS SIALIS* (Linnæus).
BLUEBIRD.

"Common. Resident. Breeds." (1891c).

Recorded in pine woods on Perdido Bay, Sept. 26, 1892.

No. 244.	Male.	Greensboro.	Oct. 12, 1889.	W. C. Avery.
No. 357.	Male.	Greensboro.	Jan. 25, 1890.	W. C. Avery.
No. 409.	Male.	Greensboro.	Mar. 11, 1890.	W. C. Avery.
No. 461.	Female.	Greensboro.	Apr. 14, 1890.	W. C. Avery.
No. 722.	Male.	Greensboro.	Oct. 1, 1890.	W. C. Avery.

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- e. No. 2.<Am. Field, Vol. XXXIV, No. 26, Dec. 27,
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- b. No. 4.<Am. Field, Vol. XXXV, No. 2, Jan. 10, p.
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- c. No. 5.<Am. Field, Vol. XXXV, No. 3, Jan. 17, p.
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 hynchos at Livingston and *Pelecanus occiden-*
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